Journal of
Reproduction & Infertility
Volume 18, Issue 2, May 2017 (Supplement)

The 3rd International Congress on Reproduction

ISERB 2017

Abstracts

ISSN:2228-5482
eISSN:2251-676 X

In the Name of God

International Congress on Reproduction-ISERB 2017

3rd ISERB Award of
Excellence in the Field of Reproduction
20-22 May 2017

Iranian Society of Embryology & Reproductive Biology 2017

Contents

The authors will bear **full** ***responsibility*** **for the accuracy of their English abstracts.**

Welcome Speech of Congress Chairman

The growth and development of science has accelerated during the recent years and part of it is subjected to the innovations in field of biology of reproduction and the derived majors.
Among them, majors like stem cells, production of transgenic animals, gene reprogramming, and prenatal diagnosis had noticeable progress during the recent years. Gene editing is a vast field which can correct the deficiencies in many genomic disorders in the future. Other applications of genetic editing include production of human beings with specific features that requires intensive evaluation on ethical, legal, and religious aspects of the issue since the incidental themes are of paramount importance as well.

Dr. Mohammad Hossein Nasr Esfahani
Chirman of the 3rd International Congress on Reproduction

During the recent decades, new emerging issues in reproductive biology and embryology were culminated in transformation and fundamental changes in this field. Among them, stem cells, transgenic animals, cloning and genetic diagnosis before implantation are the typical ones that laid the ground for research and subsequent applications in diagnosis and related treatments. The pivotal changes are all indebted to such cutting edge development.

In addition, with collaboration of all colleagues educated in medicine, experts and researchers in the field of reproduction, ISERB furthered its goals and objectives during the four year of its establishment towards invaluable achievements that steering the organization to its ultimate, exalted longing.

The upcoming congress is going to be held on 20-22 May, 2017. The congress is the result of the planning and attempts of a group of colleagues and ISERB board of directors in which the scientific topics are submitted in 17 topics in conjunction with the workshops. Furthermore, the 2nd International Congress on Reproduction is going to be established with the honorable presence of Iranian and non-Iranian scholars.

The conference lays the foundation for exchange of data, information, and scientific ideas in reproduction. Experts and researchers utilize the latest findings of modern research in the world and within the country and transfer their experiences and findings, the result of which would be the promotion of the quality of research and performance of the researchers.

Therefore, the assistance of all researchers, scholars and practitioners in medical community both at home and abroad will enrich the content of the congress and improve the quality of the programs.

Results:

- Introducing the latest scientific achievements in relation to reproduction to the related students and researchers
- Motivating the researchers in different branches of biology for research in applicability of biotechnology in reproduction
- Training professionals in diagnosis and treatment of diseases related to reproduction with the aim of improving their knowledge
- Familiarizing the researchers with ethical and legal considerations associated with reproduction
- Creating research teams for doing interdisciplinary research

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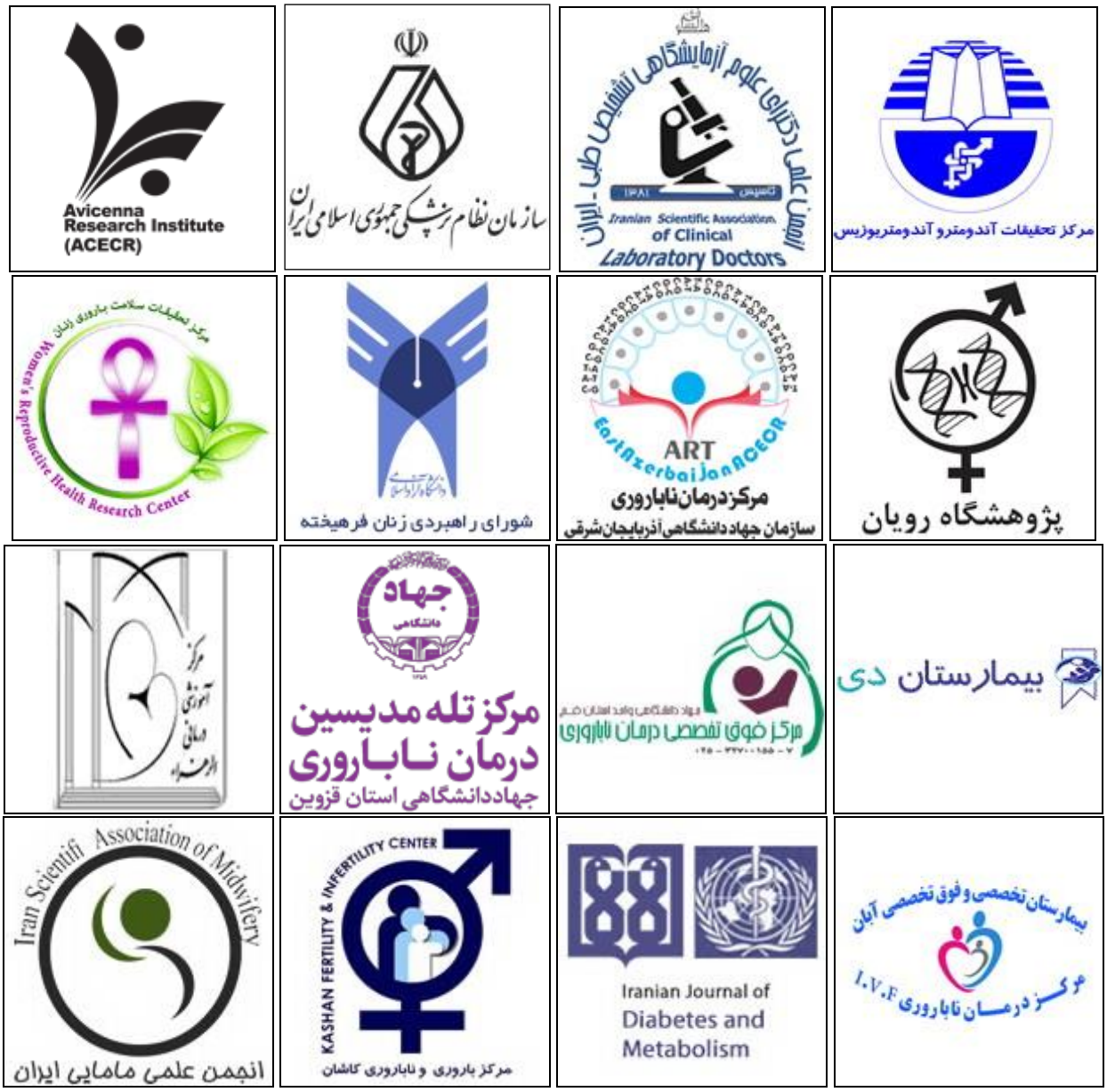

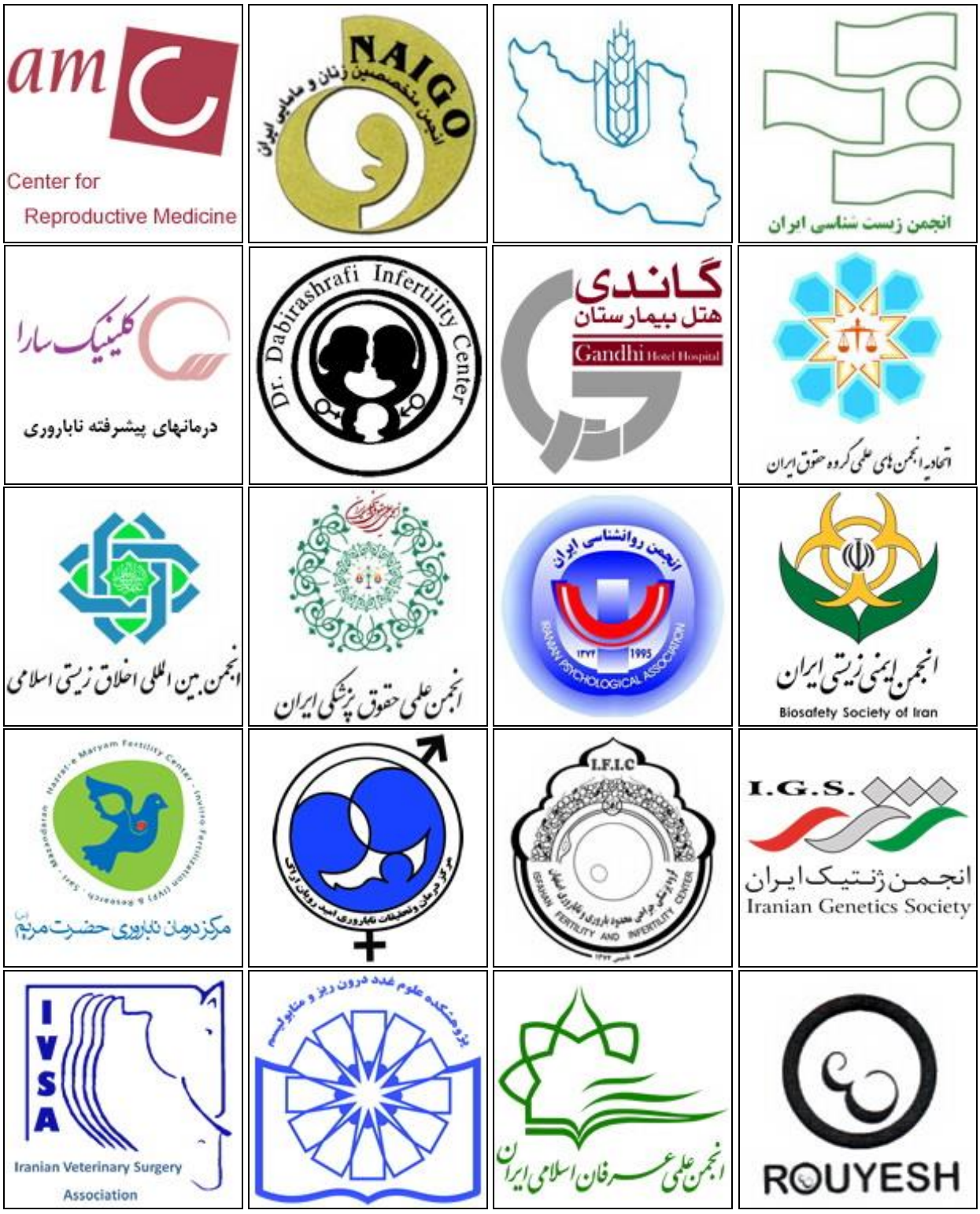
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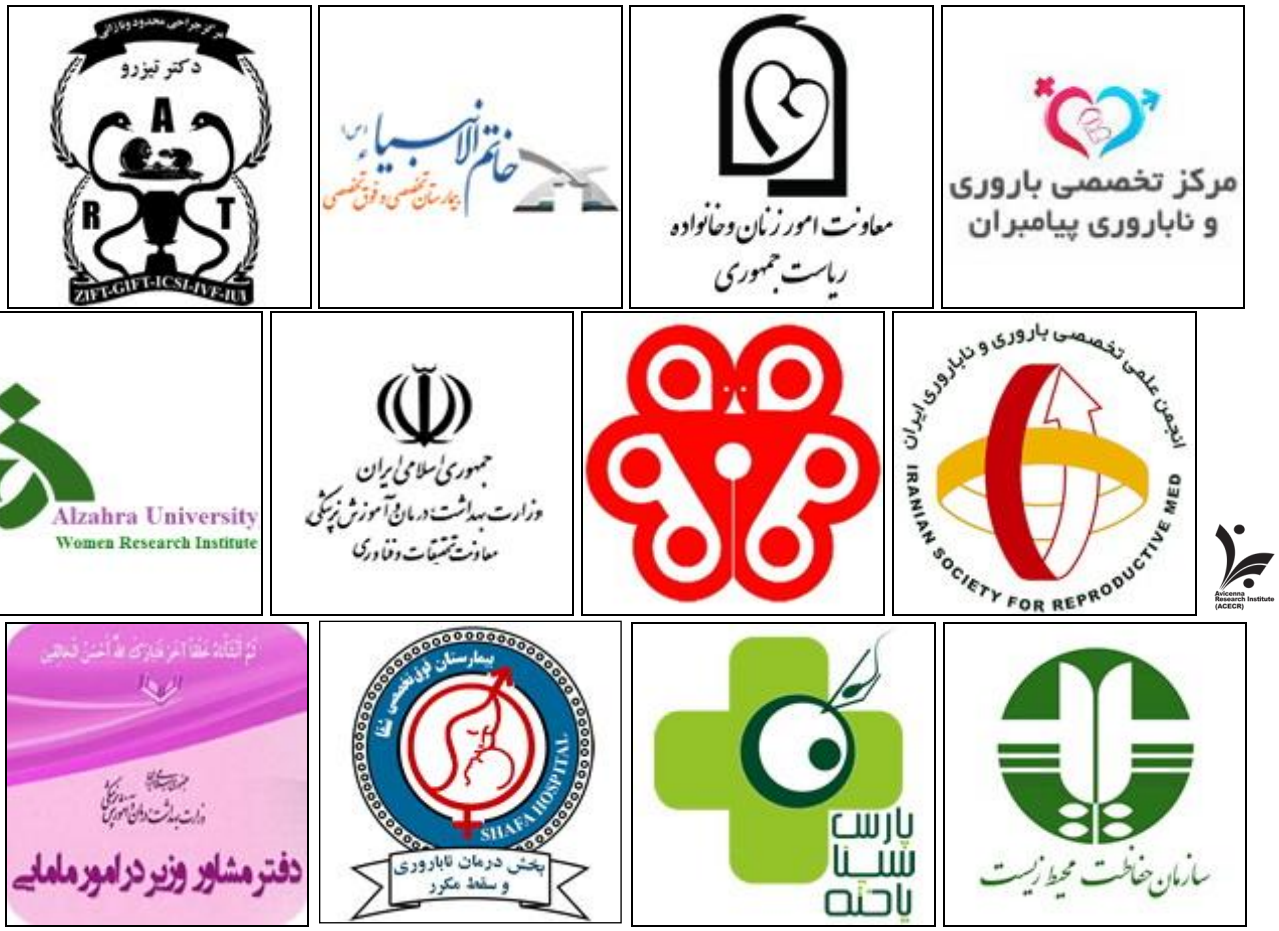
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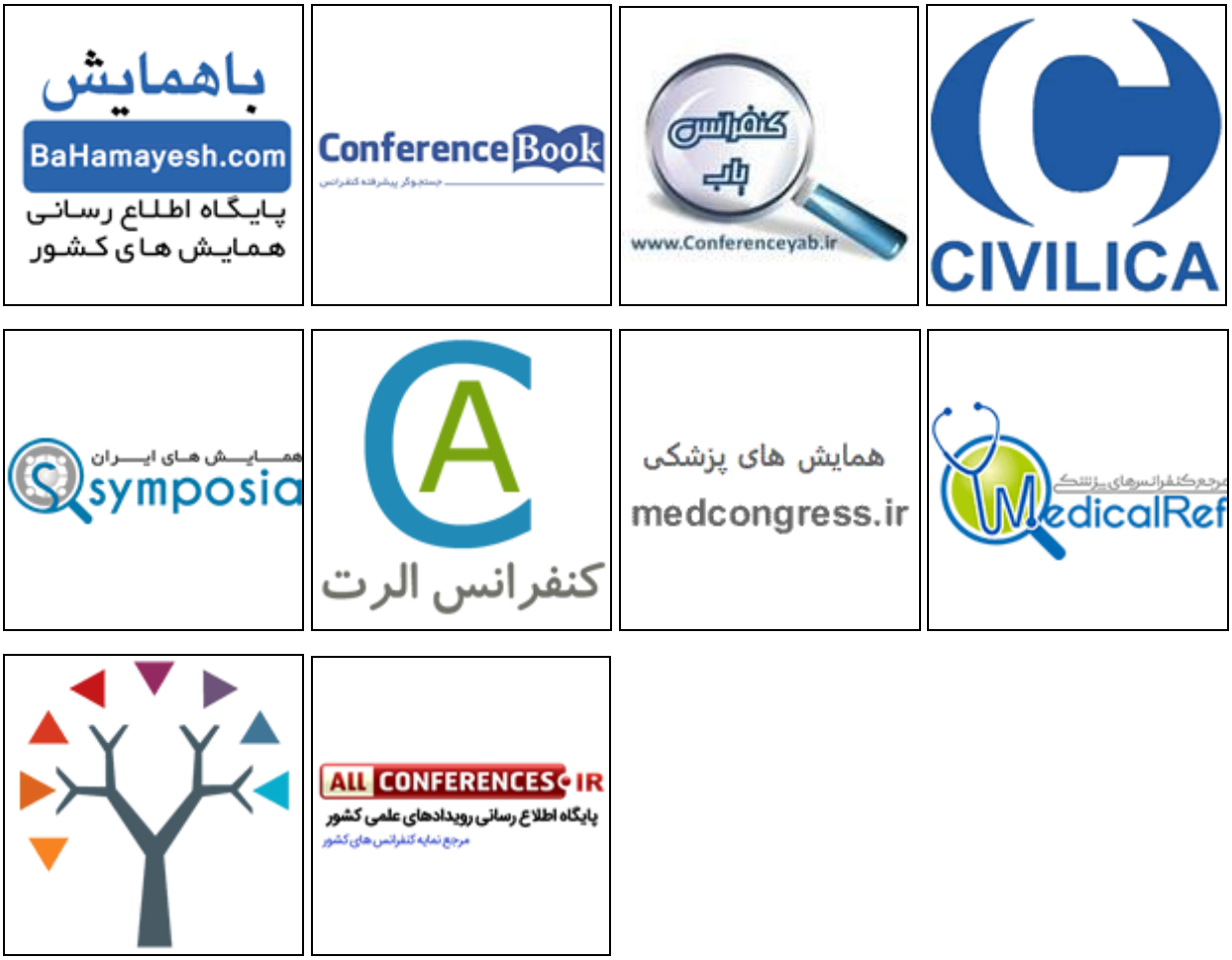

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Dietary patterns, metabolic syndrome, Poly Cystic Ovarian Syndrome and infertility

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Background: Dietary patterns are usually associated with metabolic syndrome and insulin resistance. Insulin resistance is also related to infertility. There are some evidence regarding the role of dietary patterns on metabolicsyndrome, worldwide.
Objectives: To determine the associations of dietary patterns, metabolic syndrome, PCOS and infertility.
Method: In this systematic review we used electronic databases such as MEDLINE and PubMed; EMBASE; Web of Science Proceedings; Clinical Trials.gov and Google scholar up to March 2017 by using MeSH terms and text words “fertility”, “Dietary Pattern”, “PCOS”, “metabolic syndrome”. We also considered the role of dietary patterns in metabolic syndrome and PCOS.
Results: Adherence to a western dietary pattern which is full of refined grain, sugar sweetened beverages and trans fatty acids is related to enhanced risk of metabolic syndrome and polycystic ovary syndrome. Adherence to a healthy patterns such as DASH diet and Mediterranean diet could reduce the risk of metabolic syndrome. Consuming a diverse diet with emphasis on the whole grain diversity as well as fruit and vegetable diversity could be a good choice to prevent metabolic syndrome. Whole diet indices such as healthy eating index, dietary energy density and dietary acid load are also important in this regard. Adherence to healthy dietary patterns is associated with reduced insulin resistance. Insulin resistance is related to infertility.
Conclusion: Adherence to healthy dietary patterns, higher dietary diversity score, lower dietary acid load, higher diet quality could be associated with lower risk of metabolic syndrome and insulin resistance. Adherence to a western dietary pattern is usually associated with metabolic syndrome which may be related to infertility.

Keywords: Dietary pattern, Fertility, Metabolic syndrome, Nutrition, PCOS.

Social Determinants of Health and Reproduction

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Background: There is an emerging literature that shows that many reproductive health problems which main causes of them are social determinants are preventable. New studies and strategies work to address bidirectional influences of social determinants and reproductive health.
Method: This literature review examines main social determinant of sexual and reproductive health and the complex ways these can influences on health inequities.
Results: The relationship between poverty and reproductive health can be seen at both the macro and micro levels. poverty at the macro level, – manifested in low investment in basic social services such as education can have significant implications for reproductive health and fertility trends. For example studies has shown the role of female education in promoting sustained fertility decline. Literature and evidence at the micro level devoted the role of the links and mechanisms between poverty and excess fertility, unwanted births, unsafe abortion, access to contraception, and sexual transmitted infections. The most important determinants which mediating the impact on sexual and reproductive health are gender, Urban and rural poverty and adolescence.
Conclusion: For designing effective interventions we need better understanding of the mechanisms link between social determinants of health and reproduction. Understanding the degree to which poor reproductive health reduces economic growth would provide an important tool in the advocacy toolkit for placing reproductive health centre stage. Similarly, understanding how Social determinants of health impacts on access to reproductive health services is vital.

Keywords: Reproduction health, Reproductive health, Sexual health, Social determinants.

New emerging strategies and innovations of agriculture to prevent pesticides and mycotoxins outcome on the health of the fetus and infant birth

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Nutrition and health of the mother impact on fetus welfare and is an effective factor for the health of the fetus and baby. Although it is known that factors such as alcohol, drugs and infections influence pregnancy but the role of agricultural toxins and pollutants on birth outcomes should be considered further. Environmental toxins may find a way to fetus through food or water consumed by the mother. Aflatoxin is one of the toxins that enters the body with food. Several studies have shown that the biochemical, immunity and metabolism disorders that are created by aflatoxin in fetus can lead to intrauterine growth retardation or underweight at birth. Aflatoxins biochemical effects are known by inhibiting the synthesis of proteins, enzymes and coagulation factor as well as reducing the metabolism of carbohydrates, fatty acids and phospholipids synthesis. Aflatoxins are highly carcinogenic secondary metabolites produced by *Aspergillus flavus*, Aspergillus parasiticus and *Aspergillus Numyous*. Therefore, contamination of food and animal food with aflatoxin is one of the main considerations in the fields of safety, health and food trade for humans and animal's health. It was also reported that aflatoxin can cause suppression of the immune system in children and there is a relation between aflatoxin and growth retardation in children, as well as low weight of babies at birth. The presence of mycotoxins in organic food has been reviewed and approved in several studies. In the case that aflatoxin is seen in a very little amounts during a period as a very toxic substance causes cancer. Therefore, management and agricultural practices must be done so as there is the low possibility of pollutants. In organic farming, the product may be exposed to rodents and insects that as a result, mycotoxins and natural toxins in them would be higher. Global risk assessment studies concluded that 25200 to 155000 human liver cancers per year is associated with aflatoxin contamination. Meanwhile, Genetic Engineering and genetically engineered crops provide valuable approach to the problem of aflatoxin in food products. Genetic Engineering of aflatoxins control focuses on pests' protein expression, peptides expression and antifungal protein and the usage of gene silencing technology. Focus on the resistance against insect is due to the relationship between insect damage and to aflatoxin contamination. Research suggests that these carcinogenic compounds are not only less in organic food, but also in some cases it is more than the non-organic food; for example, it has been observed that contamination of organic corn to B1 and B2 Fumonisin is up to ten times more than non-organic corn. Fumonisins are mycotoxins that are associated with many complications, including liver cancer, kidney failure, etc. However, other studies have shown that for example using technology and the using transgenic plants resistant to the European corn worm reduces aflatoxin levels in the plant. It is hoped that due to new agricultural technologies that reduce pesticide use and natural toxins such as aflatoxin, are likely to reduce harmful consequences on the birth.

Keywords: Aflatoxin, Genetic engineering, Harmful consequences of birth**.**

Adipose tissue and fertility; quantity and quality aspects in human studies

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Undesirable effects of obesity on fertility dates back as early as the 10th century by Avicenna. Recently, the higher the rate of obesity, the lower the fertility rate was reported, too. Adipose tissue (AT) is not only a tissue in which energy is stored, but it is also involved in regulating several body functions. Two major points have had pivotal points of investigation in the field of AT and fertility: first (*quantity*), the indices for obesity identification and fertility rate and second (*quality*), AT fatty acid profiles as well as genes related to steroid metabolism in AT. It was reported that subfertile persons have a significantly higher body mass index (BMI) than the general population. But little information exists on the effective use of other obesity indices (Sagittal abdominal diameter, waist circumference, hip circumference and waist-to-hip ratio) for infertile men/women when some of them are

introduced as the best predictor of abdominal fat. Quality aspects are focused on fatty acid profiles, especially for dietary fatty acids and AT fatty acid profiles. It is a concern that the elevated omega-6 concentration and omega-6: omega-3 fatty acid ratio in AT. Similarly, expression of genes related to steroid metabolism in Subcutaneous and Ventral AT were inadequately touched on, which requires further studies by reproductive viewpoints.
The critical roles of AT fatty acids as well as AT locality importance in reproduction are undertreated issue. The several aspects of current study will be applied to better understand AT functions improving fertility in obese men/women.

Keywords: Adipose tissue, Fertility, Men, Women.

Stem Cells in Reproductive Medicine

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Infertility is a major medical problem which affects 10-15% of couples worldwide. Currently, there is no treatment to be applicable in all infertile cases, for example infertile women with no oocyte or azoospermai men do not have opportunity to be biologically parents. In this regard, stem cells have opened new avenue for infertility treatments by providing unlimited source of gametes in vitro. It has been reported that mouse embryonic stem cells (ESCs)-derived primordial germ cells (PGCs) restore spermatogenesis in infertile mouse testis and contribute to new offspring. Moreover, ESC-derived PGCs produced functional oocytes following aggregation with embryonic gonadal somatic cells and transplantation to mouse ovaries.
A serious challenge in germ cell research is that there are low number of germ cells in male and female gonads. Limitations in access to this source of cells is main challenge for studying diverse mechanisms involved in germ cells development and function. Stem cells have the ability for providing an unlimited source of germ cells in the laboratory that provides sufficient material for studying mechanisms underlying reproduction and infertility. Such information would enable us to develop advanced therapies for infertile couples.
Newly discovered oogonial stem cells are promising for women with low quality oocytes or who cannot produce oocytes. Oogonial stem cells are proposed to be responsible for neo-oogenesis in mammalian ovaries after birth. These data together emphasize the critical role of stem cells in the future of reproductive medicine.

Keywords: Gamete, Germ Cells, Infertility treatments, Oogonial stem cells, Reproductive medicine.

Replacing chemical pesticides by genetic engineering

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By entering the new era, the basic structures of societies have changed and irrational exploitation of nature has opened human eyes to the shocking facts resulted from inappropriate use of nature and has led him to faster protection and more comprehensive planning in this area. Man has put his health and life directly at risk with doing injuries to key elements of nature (air, water and soil) and this risk manifests itself in a variety of diseases and morbidity altogether. With the advent of chemical pesticides to increase agricultural production and food security, outbreak and emergence of diseases such as cancer and infertility has increased significantly.
In recent decades, the spermatozoa parameters have been dramatically reduced which is directly linked with increasing use of organophosphate for agricultural and household pesticides. Diazinon is a common agricultural organophosphate insecticide which is used both in Iran and in the world, especially in rice fields. Protein phosphorylation and changes in spermatozoon chromatin and degradation of cell DNA are among degradation mechanisms expressed by diazinon. In pregnant women, diazinon impacts the fetal development and stops it which results in decreased fetal weight and fetal deformities in the genital tract.
In addition to the risks resulting from the use of pesticides, excessive and unprofessional applications also contribute to the problem such that, the World Health Organization in 2007, reported the rate of deaths from pesticide poisoning about twenty thousand

people and non-fatal poisoning has been reported as three million people.
In order to reduce the risks of pesticides on humans and non-target organisms in the environment, new methods should be replaced with the use of chemical pesticides. The present options are genetic modifications to make the plants resistant to certain factors, such as pests and plant diseases.
Although genetic modification of plants has many benefits for the environment, due to reduced performance and possible aflatoxin contamination, and despite passing nearly a century of its emergence, has been applied only on one percent of the acreage globally. genetic modifications of plants, including the use of genetic engineering over the past two decades has enjoyed a rare welcome so that almost one hundred percent of cotton production in countries such as India, Pakistan and America are resistant to pests and are genetically engineered or transgenic. The other genetically engineered products are corn, potato, soybean, canola, rice, tomato and alfalfa which occupy more than 10 million hectares of the world agricultural space (eleven percent of the total cultivated area). In our country, transgenic Tarom Molaei rice is resistant to stem borer pest, and the use of pesticides during cultivation has been removed and this rice is one of the success stories in reducing pesticide use. Another example across the world, is golden rice. This type of rice plays an important role in vitamin A deficiency compensation. In addition to reducing vision problems (especially in children), vitamin A play an important role in the regulation of reproductive glands.
According to shocking statistics published about diseases caused by toxins in the environment (particularly cancer and abnormalities of the reproduction) controlled use of these toxins is necessary. The positive impact of transgenic crops and its lack of negative impact on human, animals and the environment health is documented in prestigious scientific articles and numerous national and international reports.

Keywords: Chemicals, Environmental, Genetic engineering, Infertility, Transgenic.

Ovary tissue engineering: state of the art

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In recent years, tissue engineering approaches have demonstrated enormous potential to restore fertility in patients who became infertile as a result of chemotherapy, uterine injuries, etc. Although transplantation of fresh or cryopreserved ovary has demonstrated success, for cancer patients who cannot undergo ovary transplantation due to the possible presence of malignant cells in their ovaries, the challenge is creating an in vitro or in vivo artificial ovary. To this aim, bioengineering of a three-dimensional system that encapsulates and protects follicles and ovarian cells is required for survival and development of artificial ovary.
Despite investigations on tissue engineered strategies, the feasibility of creating whole organ constructs through these approaches is yet to be established. It proposed that with prosperous clinical translation of bioengineering technologies, these strategies hold promise as potential treatments and cures for female infertility.

Keywords: Female, Infertile, Ovary, Tissue engineering.

Saturated love leading to sexual pleasure: Iranian women's narratives

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Sexual activity typically can be a source of enjoyment and gratification. Sexual pleasure includes a variety of experiences which is affected by personality traits, gender, culture, society, economy, religious, and personal experiences. The goal of the current study is to explore how women perceive and describe their

experience of sexual pleasure. In-depth unstructured interviews were used to gather information from 26 married women. Using content analysis, we were able to identify major themes categorizing the meanings attached to the sexual pleasure among the participants. These included romantic love, spirituality; emotional and physical pleasure. Sexual pleasure so called orgasm is understood as the outcome of saturated love inside marriage. The participants felt that sexual pleasure is strongly related to committed and affectionate marital relationships. Interventions that target women's sexuality may emphasize enrichment of marital relationships.

Keywords: Iranian women, Orgasm, Qualitative approach, Sexual pleasure.

The efficiency of gonadotropin- releasing hormone (GnRH) agonist pretreatment in frozen- thawed embryo transfer cycles

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The efficiency of gonadotropin- releasing hormone (GnRH) agonist for pituitary suppression in frozen-thawed embryo transfer cycles to establish higher pregnancy rate remained debatable. The aim of present study was to compare pregnancy outcome between patients with and without GnRH agonist pretreatment in frozen- thawed embryo transfer (FET) cycles.
Two hundred seventy four patients, who had undergone FET cycles, were retrospectively analyzed. Patients were divided into 2 groups: with GnRH agonist pretreatment (group A, n=137) and without GnRH agonist pretreatment (group B, n=137). In both groups endometrial preparation was started from cycle day two. In group A, daily buserelin acetate at decreasing dosage from 30 mcg to 20 mcg was administrated in mid luteal phase of preceding cycle and given for 14 days. In both groups, patients received oral estradiol valerate at an increasing dosage from 4 mg to 8mg. The number of total thawed embryos replaced is different between groups.
There were not any significant differences in mean age (32.0±5.3 vs 31.9±5.4, P= 0.8), basal FSH (4.6± 2.6 vs 4.7± 1.7, P=0.9), number of previous FET cycles (1.6±1.4 vs 1.8±1.8, P=0.5), total collected (13.8±8.0 vs 13.2±6.8, P=0.5) and metaphase II (11.0±6.5 vs 10.0±6.0, P=0.2) oocytes and embryos (8.6±5.3 vs 7.6±4.9, P=0.1). Group A and B didn't differ in rate of chemical pregnancy (41% vs 37.6%, P=0.5).
It seems that there is no difference in pregnancy rate following FET between patients undergoing pituitary suppression and who didn't receive GnRH agonist pretreatment.

Keywords: Buserelin, Cryopreservation, Pregnancy.

Stem Cells and the Reproductive System disorders:

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Abstract:
Several updates in stem cell biology have presented new opportunities for the treatment of reproductive disease. Recent findings show a hypothetical mechanism of endometrial regeneration which can be driven by bone marrow derived stem cells. This finding has potential implications for the treatment of uterine disorders like Asherman syndrome and thin endometrium. It also supports a new theory for the etiology of endometriosis: ectopic transdifferentiation of stem cells.
On the other hand against the long held dogma of embryologically fixed numbers of oocytes, current literature suggests that human ovaries contain stem cells which are responsible for "adulthood folliculogenesis form new oocytes which provides the potential recovery of such condition like POF (premature ovarian failure) women.
Stem cell based therapy provides the potential recovery of spermatogenesis following cancer therapy. Study on animal model of non-obstructive Azospermia shows that BMSCs might offer alternative treatment for the patients with azospermatic infertility after cancer chemotherapy.
While we are just beginning to understand stem cells and many key questions remain, the potential advantages of stem cells in reproductive biology and medicine are apparent.

Keyword: Asherman syndrome, POF, Reproductive system, Stem cell, Thin endometrium.

Role of socioeconomic status on fertility and criminal abortion

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Childbearing and fertility is one of the most important issue of every woman in all of the communities and could be affected by various aspects of socioeconomic status. In the other hand, choice of contraception which is itself controlled by social and cultural factors can has dramatic effect on childbearing and rate of illegal abortion. Collaboration between couples, income and education levels, type of job in both couples and the number of offsprings are the most critical factors described in different studies. In this review, we will discuss about aforementioned factors on the fertility success and rate of abortion among various populations with different culture and religions.

Keywords: Abortion, Fertility, Socioeconomic.

Semen Analysis

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Summary: Undoubtedly, the male and his semen quality is a key factor in investigating and addressing infertility. Therefore, the evaluation of the male partner is a mandatory step in the diagnosis and treatment of couple with infertility. Semen analysis (SA) is the standard test for evaluating male fertility. The macroscopic attributes of a semen sample include volume, appearance, color, coagulation/liquefaction, viscosity and the microscopic characteristics comprise sperm concentration, motility, viability, morphology as well as cellular components such as leukocyte concentration and immature germ cells. The SA should be performed by using standard techniques and criteria as described by the World Health Organization (WHO). The WHO 2010 criteria are a guideline to improve SA but it is not obligatory and a man should not be classified as fertile or infertile based only on the SA or spermogram. Overall the traditional methods of SA were highly dependent on the user's eyes. Currently Computer Assisted SA (CASA) have become a common method in laboratories worldwide. These methods are more objective, reproducible and superior in measurement of sperm motility. Moreover, additional parameters can be measured such as curvilinear velocity (VCL), straight-line velocity (VSL), linearity and flagellar beat frequency and amplitude of lateral head (ALH).

Short Term Culture of Vitrified Human Ovarian Cortical Tissue to Assess the Cryopreservation Outcome: Molecular and Morphological Analysis

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Background: The aim of the present study was to evaluate the effectiveness of human ovarian vitrification protocol followed with in vitro culture at the morphological and molecular levels.
Methods: Ovarian tissues were obtained from 10 normal transsexual women and cut into small pieces and were divided into non-vitrified and vitrified groups and some of the tissues fragments in both groups were randomly cultured for two weeks. The morphological study using hematoxylin and eosin and Masson's trichrome staining was done. The analysis of mean follicular density, 17-β estradiol (E2) and anti mullerian hormone (AMH), and real-time RT-PCR was down for the evaluation of expression of genes related to folliculogenesis. Data were compared by paired-samples and independent-samples T test.

Values of $p<0.05$ were considered statistically significant.

Results: The proportion of normal follicles did not show significant difference between vitrified and non-vitrified groups before and after culture but these rates and the mean follicle density significantly decreased in both cultured tissues ($p<0.05$). The expression of genes was similar in vitrified and non-vitrified groups but in cultured tissues the expression of GDF9 and FSHR genes increased and the expression of FIGLA and KIT-L genes decreased ($p<0.05$). An increase in E2 and AMH concentration was observed after 14 days of culture in both groups.

Conclusion: In conclusion, the present study indicated that the follicular development and gene expression in vitrified ovarian tissue was not altered before and after in vitro culture, thus this method could be useful for fertility preservation; however, additional studies are needed to improve the culture condition.

Keywords: 17 beta- Estradiol, Anti- mullerian hormone, Gene expression, Vitrification.

How the medical sciences, sociology and anthropology could strengthen each other

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Reproductive health is defined as a state of complete physical, mental and social well-being related to reproductive system, and not merely the absence of disease. Reproductive health does not merely mean pregnancy but it also should be looked at through a lifecycle approach to all related events such as: Puberty, Sexual Relationships, Sexual Responsibilities, reproductive tract diseases, Infertility, Menopause and so on, as it affects both male and female from birth to death.

It is evident that human being reproduction is a complicated process and a number of social, environmental, biological and psychological issues have effect on it and virtually it is mutual.

With recent advances in medical sciences, equipments and facilities, changes in personal relationships and social interactions, altered definition of personal life and values, an individual has to try to find a way to accommodate to these to simply catch up on ecosystem. Furthermore, some of the changes, for example, in childbearing behaviors, are believed to be because of evolution of human societies and lifestyles. Nowadays what appears to be helpful in having healthy individuals is that to involve other disciplines namely Anthropology, Sociology, Psychology and etc in our approaches. Basically, by following multi disciplinary attitude, there will be definitely eye-catching advances in this area of health. By that mean we can help to set up and maintain a healthy society; otherwise, we would stay passive.

Keywords: Anthropology, Childbearing, Medical sciences, Pregnancy, Reproductive health, Sexual relationship, Sociology.

Iranian Society of Embryology & Reproductive Biology (ISERB)
20-22 May, 2017

ABSTRACT

Sperm Quality – Role of L-Carnitine, Acetyl-L-carnitine, and Other Metabolic Compounds

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A number of techniques are being developed to examine the sperm quality such as genetic testing, DNA fragmentation, chromosome number (aneuploidies) as well as looking at mitochondrial numbers and function. However the most frequently used test is still the spermogram with sperm quality parameters defined by WHO in 2010.

However what about treatments that can modify the sperm quality? There is research showing that certain treatments can have a positive effect on both quantity and quality of sperm.

Studies suggests that the use of L-carnitine (L-C), acetyl-L-carnitine (ALC), specific antioxidants, mineral and metabolic compounds can decrease oxidative stress levels, improve semen parameters and reproductive outcome.

We have carried out recent multicenter studies in Italy, Serbia and UK. These and other studies are showing that therapy with specific L-C, ALC and other antioxidant compounds can:

- Improve sperm quality and fertility potential.
- Reduce sperm aneuploidy levels
- Improve sperm morphology and DNA integrity

- Give hope also to severe patients – Azoospermia, Teratozoospermia

These data as well as the potential biological mechanism underlying these effects will be discussed during the meeting.

Using PGD to save affected children, Birth of healthy, HLA matched children

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In some genetic diseases stem cell therapy can save lives. Thalassemia is the most prevalent disease in Iran. Another genetic disorder of interest was epidermolysis bullosa dystrophica (EB). In both cases a HLA matched child can help to save another sib's life.

PGD were carried out by selecting STR markers flanking either beta-globin gene or COL7A1 gene for beta-thalassemia and EB respectively. For HLA typing more than 52 STR markers flanking class 1 to class 2 genes as well as the centromere and telomere regions of the HLA region in chromosome 6 were used. These markers were used to construct haplotyping for the family and defective gene segregation.

After confirmation of haplotype segregation, IVFs were carried out at different IVF centers collaborating with us particularly Abasn Hospital IVF center, which has shown to have the highest rate of success in producing viable fetuses and live born.

A single blastomere was biopsied from each growing embryo. The blastomeres were put into each microtube containing lysis buffer. Each tube also contained primers for the specific gene (for sequencing), for STRs amplification and HLA typing. In each tube more than 25 sets of primers were amplified in two rounds of amplification. The second round contained labeled primers. For the second round a small amount of first round PCR products for 3-8 sets. The amplified products were run on sequencing machine.

Haplotypings were carried out and the information was used to determine the fate of each embryo. HLA matched, unaffected embryos were determined and reported to the IVF center. So far 4 cases of HLA matched, disease PGD have resulted in births of healthy HLA matched children.

We think PGD for HLA typing is feasible and can help families to have a healthy baby upon birth can make the family happy as well as hopeful to use small amount of his or her skin or bone marrow to save life of the affected sib.

Keywords: Embryo, Genetic, HLA, IVF, PCR.

Oral Presentations

O1: Intraoperative and post-operative complication of segmental bowel resections for endometriosis

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Background: Gastrointestinal endometriosis is a challenging subtype of the disease. Segmental bowel resection has traditionally been seen as a highly morbid procedure and complication rates were quoted based on the data from colorectal cancer patient. In this study, we present our series and report our complication rates.

Methods: All patients who underwent segmental bowel resection for endometriosis at our referral centre between 2013-2016 were included. Contemporaneous electronic database, patient casenotes and procedure videos were reviewed. All patients were contacted by phone to enquire about late onset complications.

Result: 34 patients underwent segmental bowel resection for endometriosis. All procedures were performed by an experienced gynaecologist (SK) in collaboration with a colorectal or general surgeon for the latter parts of the procedure. The mean surgical time was 285.15 minutes (range 160-260). 3 cases (8.82%) were converted to open by the colorectal or general surgeons. There were no anastomosis leak, no peritonitis and no fistula formation in our patient group. Only one patient (2.9%) required a prophylactic ileostomy as the vagina had been opened and the anastomosis line was very low. The same patient required further surgery to extend the rectus sheath incision which was causing ileostomy obstruction. There was one (2.9%) unintended intraoperative enterotomy, which was immediately recognized and repaired laparoscopically with no sequelae. 9% of patients developed high grade and 18.1% low grade pyrexia soon after the procedure. They all responded to antibiotic therapy quickly. One patient required blood transfusion and one developed wound dehiscence.

Conclusion: Segmental bowel resection in patients with endometriosis have a significantly better complication rate, compared to the commonly quoted rates for cancer patients undergoing the same procedure

Keywords: Deep infiltrating endometriosis, Pelvic pain, Recurrence, Uretrolysis, Endometriosis, Segmental bowel resection

O2: Comparion of sperm PLCζ expression and chromatin structure between infertile men with globozoospermia and fertile individuals

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Background: Globozoospermia, is a severe tetatozoosperrmia that sperms have a round head and without acrosome. Such sperms cannot penetrate to oocyte, so failure in fertilization occure. Assisted reproduction techniques mainly intra cytoplasmic sperm injection (ICSI), can be used to achieve oocyte fertilization and pregnancy. However, because of inability of sperm to activate oocyte, fertilization rate is low. Sevral studies have demonstrated that the inability of round headed spermatozoa in oocyte activation after ICSI is because of deficiency or absence of sperm factors involved in oocyte activation (SOAF) and phospholipase C zeta (PLCζ) as major sperm factor involved in this phenomenon is introduced. So in this study, we assessed sperm PLCζ expression and chromatin structure between infertile men with globozoospermia and fertile individuals.

Methods: Semen samples were collected from 20 fertile and 20 infertile men with globozoospermia. Expression of PLCζ was assessed by Real Time PCR, also sperm DNA fragmentation and protamine deficiency were evaluated by TUNEL (Transferase-mediated deoxynucleotidyl dUTP nick end labeling) and CMA3 (Chromomycin A3) techniques, respectively.

Result: The result of this study indicates that expression of PLCζ was significantly lower in infertile men with globozoospermia compared to fertile men (P≤0.05). In addition, DNA damage and sperm protamine deficiency in infertile men with globozoospermia were significantly higher than fertile men (P≤0.05).

Conclusion: Expression of PLCζ, protamine content, and DNA fragmentation were deficient in spermatozoa of infertile men with globozoospermia. Therefore, in addition to low quality of semen in these individuals, sperm chromatin structure and expression of some protein like PLCζ were disrupted during spermiogenesis.

Keywords: Chromatin, PLCζ , Globozoospermia, Infertility

O3: Genotyping of peroxisome proliferator activated receptor gamma (PPAR-γ) polymorphism (Pro12Ala) in Iranian patients with polycystic ovary syndrome

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Background: Polycystic ovary syndrome (PCOS) is characterized by exaggerated production of androgens, ovulatory dysfunction and abnormalities in ovarian morphology, which affects about 5%-10% of women of reproductive age and is a leading cause of infertility. Peroxisome proliferator activated receptor-gamma (PPAR gamma) is a nuclear receptor that regulates adipocyte differentiation, and possibly lipid metabolism and insulin sensitivity. This enzyme is a candidate gene for several human disorders including obesity and type 2 diabeteAs mellitus. Screening for mutations in the entire coding region of the PPARγ gene yielded a missense C→G mutation at codon 12, resulting in the substitution of proline with alanine (Pro12Ala).Objective: Polycystic ovary syndrome is a heterogeneous disorder associated with a moderate degree of insulin resistance and a higher risk of developing abbreviation for obsolete term non-insulin-dependent diabetes mellitus (NIDDM). The aim of this study was to investigate the frequency of Pro12Ala polymorphism in patients with PCOS.

Methods: A total of 100 reproductive-aged women were included in this case–control study were diagnosed as a PCOS based on Rotterdam criteria and 100 healthy women with no evidence of PCOS were recruited as controls. The case and control group were genotyped using the technique PCR-RFLP for Pro12Ala polymorphism.

Result: The cc allele frequency was 67% in patients group. Among studied subjects 2% were abnormal homozygous and 31% were genotyped as heterozygous. The allele frequency differences between groups were estimated using Chi-squar test, and we have seen significance difference (p value< 0.0001) between two groups. Also, FSH and LH levels were difference in patients and control groups.

Conclusion: this study demonstrates difference in allelic distribution in Iranian population. Also, The allele frequency of Iranian population is similar to Indian population. Future association studies are required to reveal clinical consequence of Pro12Ala polymorphism in carrier individuals.

Keywords: Genotyping, PCR-RFLP, Polycystic ovary syndrome, Polymorphism, PPARγ, PCOS

O4: Effects of cryoprotectants and trehalose on electron microscopic evaluation of cryopreserved sperm

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Background: The present study was conducted to examine the effects of different cryoprotectants (glycerol, G and ethylene glycol, EG) and trehalose (T) on cryopreserved ram sperm.

Methods: Ejaculates collected from six Merinos rams were pooled and evaluated at 37 C. Pooled semen samples were divided into six aliquots, and diluted in a Tris-based extenders containing %5 G, %3 G + 60 mM T, % 1.5 G + 100 mM T , % 5 EG, %3 EG + 60 mM T and % 1.5 EG + 100 mM T. Then, they were cooled to 5 C and frozen in 0.25 ml French straws. Frozen straws were then thawed individually at 37 C for 25 s in a water bath for electron microscopy evaluation. Field Emission Scanned Electron Microscope (FESEM) was used for examining the thawed sperm.

Result: The groups of ethylene glycol % 5 and %1.5 ethylene glycol + 100 mM trehalose provided the highest protection for sperm morphologies among the groups. The addition of trehalose at high dose in semen extenders tended to reduce the damaged percentages in sperm cells (p

Conclusion: Trehalose at 100 mM with/without ethylene glycol (1.5 and 5%) supplementation in semen extenders provided a great protection of sperm morphologies against cryopreservation injury in electron microscopic examination.

Keywords: Cryopreservation, Cryoprotectant, Sperm parameters, Trehalose, Ram semen

O5: Laparoscopic ureteroneocystostomy and vesicopsoas hitch for infiltrative endometriosis of ureter

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Background: The purpose of this study was treatment of ureteral endometriosis by laparoscopic ureteroneocystostomy and vesicopsoas hitch.

Methods: This retrospective study included 3 women with severe endometriosis and ureteral obstruction due to infiltrative disease of the distal ureter. The patients underwent successful laparoscopic ureteroneocystostomy and vesicopsoas hitch.

Result: Two patients had ureteral stents in place prior to the psoas hitch surgery and one of them had history of ureteral implantation because the urologist can not insert DJ stent .Surgery procedure was laparoscopic ureteroneocystostomy and vesicopsoas hitch. No postoperative complications occurred. All patients had a normal cystogram performed 10 to 14 days postoperatively prior to Foley catheter removal. Stents were kept in place for 6 to 8 weeks, and an intravenous pyelogram (IVP) was done 2 weeks after removal.

Conclusion: Laparoscopic ureteroneocystostomy and vesicopsoas hitch can be a safe and effective alternative to the laparotomy and with the known benefits of laparoscopy.

Keywords: Ureteral endometriosis, Ureteroneocystostomy, Laparoscopy, Vesicopsoas hitch

O6: The relationship between occupational exposure and PPARγ gene expression

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Background: Many studies have shown that environmental pollution and chemical materials increased stimulated reactive oxygen species (ROS) production and decline in antioxidant values in human testicles, resulted to decrease in normal morphology, viability and concentration of human sperm and finally disturbed the spermatogenesis. On the other hand, It seems that Peroxisome proliferator-activated receptor gamma (PPARγ) which is one of the most important genes in sperm metabolism, reduces ROS production in human body. The main objective of this survey was to determine and compare PPARγ gene expression in sperm of men with high-risk occupation and men with normal jobs.

Methods: Ejaculated sperm have been collected from men (n=80) referred to Royan Institute. The men with exposure in their lives and hard physical jobs were separated from other men. Sperm mRNA was isolated by RNeasy plus universal Mini Kit Qiagen. PPARγ gene expression was determined by real-time PCR. Beta actin was used as house keeping gene. Data were analyzed using the MIXED procedure of SPSS2 program.

Result: Our results indicated that PPARγ gene expression in the men with high-risk occupation and exposure are significantly lower than men with normal occupation ($p \leq 0.05$).

Conclusion: Men with high-risk occupation have expressed significantly lower PPARγ gene compared with men with normal job, and due to the important role of PPARγ gene in human sperm methabolism, it seems that occupation type is so important in men fertility.

Keywords: Gene expression, High-risk occupation, Real-time PCR, ROS, Exposure, PPARγ

O7: The relationships among sexual function, sexual self-esteem, sexual quality of life, and sexual self-efficacy based on body mass index in women

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Background: Sexual health is a critical component of couples' health and general health. Body Mass Index (BMI) is known to influence sexual function, self-efficacy, and sexual performance. This study is conducted to compare sexual function, sexual self-esteem, the quality of sexual life, and sexual self-efficacy among women with respect to BMI.

Methods: During a cross-sectional study in the city of Isfahan, a total of 192 married women aged between 18 and 50 were recruited as a convenient sample. Data were gathered using meter and digital scale and several questionnaires: Female Sexual Function Index (FSFI), Sexual Self-Efficacy, Sexual Self-Esteem, and quality of sexual life. The data were analyzed using SPSS 23.

Result: Differences in average desire, arousal, and orgasm scores among the underweight, normal BMI, and obese individuals were found to be significant (p

Conclusion: The results showed that women with normal BMI tend to experience better quality of sexual life and this might be due to their sexual attraction and social desirability characteristics. But considering other results about sexual function ,sexual self efficacy and sexual selfesteem, other factors i.e. , intrapsychological, interpersonal factors and socio-

cultural schemas were suggested to be considered , in addition to BMI as important mediating factors.

Keywords: Quality of sexual life, Sexual self-efficacy, Sexual self-esteem, Body mass index

O8: Evaluation of insulin resistance in murine polycystic ovary model

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Background: Polycystic ovary (PCO) syndrome is one of the conditions resulting in miscarriage and other complications of women's reproduction system. Type 2 diabetes, obesity, metabolic syndrome, hypertension and so on are considered as risk factors of PCO syndrome. Metformin is used for the treatment, because of insulin resistance in such patients. Since insulin resistance in previous murine models of PCO has not been evaluated before, we are trying to approve this research modeling through empirical administration of insulin glargine.

Methods: A number of 22 female and 7 male mice were divided into 4 groups; PCO modeling group, 2mg/100g testosterone enantate solved in olive oil; female control group, 1U/18g insulin glargine; male control group, 1U/18g insulin glargine; and a female group for combined administration of testosterone enantate and insulin glargine for drug interaction evaluation. All the administrations were daily for 2 weeks. Death in 1st 48h of stating insulin administration was considered as insulin sensitivity. Fisher's exact test was used for statistical analyses.

Result: In the combined administration group, all the mice died after 1st administration. In the PCO modeling group, all the animals were survived after 2 weeks of administration of testosterone enantate, and also survived after empirical administration of insulin. Three out of 7 animals in the female controls, died in the 1st 48h. All the male controls, were survived after insulin administration. Insulin resistance in the modeling group was higher in comparison to the female controls, but it was not statistically significant (P=0.19).

Conclusion: From the power analytic statistical point of view, further evaluations can verify the insulin resistance in murine models of PCO.

Keywords: Insulin, Mice, Polycystic ovary syndrome

O9: Correlation of G22A adenosine deaminase (ADA) gene polymorphism in woman with polycystic ovary syndrome

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Background: Polycystic ovary syndrome (PCOS) is a common endocrine disorder in women of reproductive age . PCOS has attracted much attention during the last decade because of its worldwide prevalence and associated clinical complications. Adenosine deaminase (ADA) regulates concentration of adenosine as main modulator of oocyte maturation. There are compelling evidences for the association of ADA1 gene polymorphisms with many diseases but the importance of ADA1 polymorphisms in PCOS has not been studied before. Therefore, this study aimed to evaluate the prevalence of different genotypes of G22A polymorphism and enzymatic activity of total adenosine deaminase as well as its isoenzyms, ADA1 and ADA2, were determined in both groups.

Methods: In this case-control study, 200 PCOS patients and 200 healthy women were enrolled. The prevalence of G22A genotypes were determined using PCR RFLP technique and the activity of adenosine deaminase was measured by Giusti and Galanti colorimetric method.

Result: Prevalence of GG, AA, and GA genotypes did not differ significantly between PCOS and control subjects, however, women with PCOS showed remarkably reduced activities of total adenosine deaminase and its ADA1 and ADA2 isoenzymes compared with health women.

Conclusion: The present study showed that total ADA activity as well as ADA1 and ADA2 activities declined in PCOS patients. Moreover, GA genotype showed lower ADA activity than GG genotype. Therefore, it can be concluded that G22A polymorphism may play an important role in the development and progression of PCOS by altering ADA activity.

Keywords: Alleles, Genotypes, Polycystic ovary syndrome, Single nucleotide polymorphism, Adenosine deaminase

O10: The effect of growth factors on proliferation and viability of chicken spermatogonial stem cells

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Background: The aim of this study was to evaluate the effect of the different growth factors on growth, proliferation, and viability of chicken spermatogonial stem cells (SSCs) in vitro culture.

Methods: The SSCs isolated from 4-6 week-old Arbor Acres chickens testes. It was cultured for 7 days with DMEM medium in four different treatments groups of growth factors including: 1) leukemia inhibitory factor (LIF) , basic fibroblast growth factor (bFGF) and glial cell derived neurotrophic factor (GDNF). 2) GDNF, bFGF. 3) GDNF. 4) FBS 10% without any growth factors. The colonies were assessed at 7th day of culture.

Result: The result of immunocytochemistry showed that cell colonies were positive for the three SSC specific markers SSEA1, SSEA3, vasa. Also, PAS test was positive for all treatment groups. The colony numbers, and cells/colony in treatment group No. (1) were significantly higher than other groups when compared with others ($p \leq 0.01$).

Conclusion: Results of this study show that growth factors can improve the growth and proliferation of chicken SSCs, but the synergic effect of three growth factors including, GDNF, LIF and bFGF have the most positive effect on chicken SSCs during in vitro culture.

Keywords: Chicken, Growth factors, Spermatogonial stem cells

O11: Animal enriched serum contains vitamin E and omega-3 fatty acids; a new suggestion to improve frozen-thawed human sperm quality

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Background: Cryo-injuries in human sperm cryopreservation encouraged researcher to design a suitable protocol for sperm freezing. Supplementation of freezing media with an enriched serum obtained from animal fed a diet supplemented with fish oil (FO) and vitamin E (VITE) could be a suitable strategy to preserve the quality of sperm after cryopreservation.

Methods: To produce enriched serum, 16 rams (n=4) were fed diets as follows: Control (CTR), vitamin E (VITE; 200 IU/ram/day), fish oil (FO; 40 g/ram/day) and fish oil + vitamin E (FO+VITE). In the second phase, semen samples were collected from 25 normospermic men and then were divided into six equal experimental groups for cryopreservation in freezing media (SpermFreezTM, Fertipro) containing enriched 2.5% ram serum as mentioned above. To evaluate the effects of enriched serum on the quality of frozen-thawed sperm, several parameters such as motion characteristics plasma membrane integrity (HOST), morphology (Papanicolaou), Mitochondrial membrane potential (JC1) and total ROS (Chemiluminescence assay) were recorded. Data were analyzed using SPSS.

Result: The highest significant (p0.05) affected by the serum supplementation. Mitochondrial membrane potential parameters in this study confirmed our results related to integrity and morphology.

Conclusion: It seems that enriched serum contained FO+VITE can improve human sperm quality after freezing-thawing. More investigations for roles of omega-3 fatty acids and antioxidants need to be considered for protection of sperm against cryo-injuries in freezing media.

Keywords: Freezing, Sperm, Enriched serum

O12: Evaluation effects of nano particles on Hela cells for treatment of cervical cancer

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Background: Cervical cancer is one of the most common cancers in females. Risk factors including early intercourse, many sexual partners, teenage mothers, cervicitis, genital viral infections and extended oral contraceptive increase cervical cancer rates. In acute conditions hysterectomy, chemotherapy and radiation may be indicated. Almost many of these methods are invasive and have side effects. Regarding this matter, we need new compounds and methods for improving treatment process. Progress in Nano medicine could lead to use Nano particles as a new treatment for cervical cancer.

Methods: Hella cells were purchased from Iran Pasture Institute. The cells were incubated with RPMI media +15% FBS and 1% pen/strep. They were cultured for a period of 5-7 days and divided to control and treatment groups. Experimental groups were treated with 80 mg/ml silver Nano particles (SNP) and 5 µg/ml cisplatin too. Viability of cells in groups was examined with MTT assay in days of 3 till-7 after incubation. So specific gene expression was evaluated by Real Time PCR.

Result: The cell survival rate and mortality in 3 and 5 days was significant. Therefore, after 7 days, the results showed increase of expression of genes of bcl2 and bax in experimental groups. Using cisplatin and SNP increased cell death compared to other. Gene expression of cells with Nano and cisplatin was more significant than cell group with only cisplatin (P

Conclusion: Results of this study showed that SNP induced cytotoxicity of hella cells. Increasing cell death and apoptosis may be due to hyperthermia. Using SNP can help to minimize chemotherapy drugs levels like cisplatin in treatment of cervical cancer.

Keywords: Cell culture, Cisplatin, Hella cells, MTT, Treatment, Cervical cancer

O13: Evaluating genetic alterations of the first exon and intron of TEKT2 gene in infertile men with total sperm immotility referring to Royan institute

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Background: Sperm immotility is the absolute asthenozoospermia that sperms have no motility at all. It may be due to several reasons including ultrastructural defects like dysplasia of the fibrous sheath (DFS) or primary ciliary dyskinesia (PCD), and mutation in genes which involve in sperm flagella formation. The aim of this study was to evaluate genetic alterations in first exon and intron of TEKT2, a gene which has important role in formation of inner dynein arm of sperm flagella and may have a role in spermatogenesis.

Methods: In this case-control study, blood samples were retrieved from 20 infertile men with total sperm immotility as case group and 20 men with normal spermogram as control group. DNA was extracted from these blood samples, then the mentioned region amplified in both case and control groups by PCR using specific primers. Finally, these amplified regions were sequenced in order to evaluate any alteration.

Result: After PCR-sequencing, no variations have been observed in both case and control groups, compared with reference sequence.

Conclusion: From obtained results, it could be concluded that genetic alterations of first exon and intron regions of TEKT2 have no relation to sperm immotility. The evaluation of other exons/introns of this gene in order to find alterations related to sperm total immotilty is strongly recommended.

Keywords: Flagella, Infertility, TEKT2, Sperm immotility

O14: Adenosine deaminase activity in polycystic ovary syndrome (PCOS) and healthy subjects

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Background: PCOS is one of the most common endocrine disorders occurring in women. Epidemiological studies have resulted in estimates of prevalence, in Iranian women of reproductive age at14.6% using biochemical and/or clinical evidence. The correlation between the activity of adenosine deaminase, which deaminates adenosine and 2-deoxyadenosine, and the follicular growth and development has previously been documented. However there is no information available about the impact of adenosine deaminase polymorphisms on polycystic ovary syndrome (PCOS). Therefore, this study aimed to evaluate the enzymatic activity of total adenosine deaminase as well as its isoenzyms, ADA1 and ADA2, in women with PCOS and healthy women groups.

Methods: Two hundred women with PCOS and 200 healthy female subjects were enrolled in this paired-match study. The serum activity of adenosine deaminase was measured by Giusti and Galanti colorimetric method.

Result: tADA activity was significantly lower in PCOS compared with control (27.76±6.0 vs 39.63±7.48, respectively). PCOS patients also showed reduced activity of ADA1 and ADA2.

Conclusion: The present study showed that women with PCOS remarkably reduced activities of total adenosine deaminase and its ADA1 and ADA2 isoenzymes compared with health women. Therefore, it can be concluded that adenosine may play an important role in the development and progression of PCOS.

Keywords: ADA1 isoenzyme, ADA2 isoenzyme, Polycystic ovary syndrome, Total adenosine deaminase, Adenosine deaminase

O15: Predictive role of serum estradiol level in implantation rate of frozen-thawed embryos

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Background: The successful outcome during in-vitro fertilisation (IVF) depends on optimizing ovarian-stimulation protocols that can result in good-quality oocytes and achieving pregnancy. Many factors affect the outcome of pregnancy. The role of estradiol (E2) in IVF cycles is well known in fertilization. They regulate follicle and oocyte maturation as well as preparation of the uterus for implantation. Some studies suggested that high E2 levels were not detrimental to the IVF outcome, while others revealed that high serum E2 levels result in uterine, receptivity. However, the role of E2 remains a controversial issue in reproductive medicine. The aim of current study was to determine the predictive role of serum estradiol level in implantation rate of frozen-thawed embryos.

Methods: Retrospective cohort study was done on women aged 20–38 years who underwent IVF/ICSI cycle referred to infertility treatment center of Besat Hospital. Transfer of frozen-thawed was performed on day 3 embryos with administration of estradiol(E2) and progesterone (P4) supplemented cycles .Serum LH, FSH, estradiol, and progesterone concentrations were measured using an immunometric assay system.

Result: A total of frozen cleavage stage embryos were thawed on the patients who participated during this study period. Embryos remained viable following thawing. A mean of 3 thawed embryos were transferred per patient. The overall implantation rate was 48 %, the clinical pregnancy rate was 45.3%. E2 serum levels were higher than in pregnant women as compared to non-pregnant women (p0.05).

Conclusion: Results showed that serum E2 may be used to predict implantation or pregnancy outcome of day 3 frozen thawed embryos transferred in artificially programmed cycles.

Keywords: Embryos, Frozen embryo, Pregnancy, Estradiol

O16: Expression of toll-like receptors 2, 3 and 4 in endometriosis

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Background: Endometriosis is a benign disorder which is characterized by the presence of endometrial glandular and stromal cells in areas outside of the uterine. TLRs are essential receptors of the innate immune system that stimulate numerous inflammatory pathways and harmonize systemic defense against pathogens, whereas TLRs are expressed in the endometrial cells, as a result their expression and their regulation might be vital for the pathogenesis of endometrial diseases especially endometriosis. The objective of this study is to clarify the expression of TLR 2,3,4 in the ectopic and eutopic endometrium of women with endometriosis compared to normal endometrium of healthy women.

Methods: Normal and eutopic endometrium obtained with pipelle from endometrium of women without and with endometriosis, respectively. Ectopic samples collected by laparoscopic procedure from patients with endometriosis. Total RNA was extracted from these samples and treated with DNase I. First-strand cDNA synthesis was then performed. RT-PCR and quantitative PCR were performed using the prepared cDNA and primers for TLR2 ,3 and 4. Relative TLR expression quantities were compared between three groups. The threshold cycle values were normalized against the threshold value of β-actin. Differences in normalized expression values between samples were tested for significance using ANOVA statistical test. The results were expressed as mean ± SEM. The P value less than 0.05 was considered as significant level.

Result: RT-PCR has been shown the expression of TLR2 &3 genes in all samples of the eutopic , ectopic and control groups .The mean relative expression of TLR2,3&4 genes in endometriosis groups were significantly different from the control group.

Conclusion: Endometriosis is a very complex disease with a great impact on many women's quality of life. This disease affects roughly one in ten women of reproductive age. There are obvious associations between endometriosis and the immune system, and

future strategies to treat endometriosis might be based on immunological concepts and methods. The different expression of TLR2,3 & 4 in these three types of endometrial tissues may be a strong evidence of critical role of innate immune system in outbreaks of endometriosis.

Keywords: Ectopic endometrium, Eutopic endometrium, Innate immune system, TLR, Endometriosis

O17: A study of judicial precedent on determination of moral competence as stipulated in the embryo donation law of Iran

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Background: Item (A) of section 2 of the law on the Method of Embryo Donation to Infertile couples, specifies moral competence as one of the conditions of the couples. “Moral competence” may be criticized from two perspectives: on the one hand, this is a broad and vague concept, and on the other, methods of verifying the moral competence are uncertain..

Methods: Exposition and analysis of courts verdicts, having been issued on the basis of the embryo donation law, lay the ground for the study of the afore-mentioned concept in the law.

Result: It seems that boundaries of the concept of moral competence are not clear. This in turn leaves ample room for arbitrary decisions on determination of the competence. However, the courts, in issuing their verdicts, have made a resort to certain objective criteria, some of which have already been referred to in the said law, such as non-addiction to alcohol and narcotics, while some other have been ignored by the legislator, such as having no criminal record. In addition, the mentioned methods of determination of moral competence by the courts do infringe the required confidentiality to a considerable extent. Methods such as testimony of witnesses, signature and approval of the informed, explicit or implicit investigation and affidavits undersigned by the informed and the trusted generally runs counter to principles of confidentiality in the provision of infertility treatments.

Conclusion: Two main criticisms may be raised on the determination, by the courts, of moral competence as stipulated in the embryo donation law: (1) Lack of objective criteria for determining the moral competence; and (2) Infringement of confidentiality. It seems that we need to put forward certain objective criteria by which the competence of infertile couples for receiving embryos can be determined, and in a way that the required confidentiality is kept.

Keywords: Confidentiality, Criteria, Embryo donation, Moral competence

O18: Prognostic factors associated with bilateral microsurgical vasovasostomy success

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1-

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Background: Vasectomy (Closing or removing a portion of the vas deferens) is the most common method of contraception in men. Approximately 42 to 60 million men around the world are undergoing vasectomy. According to a study performed in Iran in 2006, prevalence of vasectomy in Iranian men is 3%. Possible side effects of vasectomy include: inflammatory reactions, thickening and inflammation of the prostate epididymis, sperm granuloma, formation and thickening and enlargement of the epididymis and the resistant pain of testis. In addition, this study is the first study to examine the microscopic surgical vasovasostomy in Iran, so we can determine the environmental factors.

Methods: The records of all cases of vasovasostomy performed in Rasool Akram, from January 2014 to January 2015 were extracted. We reviwed all items of

the check list from their records and follow the patients after surgery. Factors affecting surgical success, after entering the questionnaires, were analyzed using SPSS and the results were presented.

Result: The success rate of surgery was 31 patients (62%). The relationship between the study variables was measured by univariate and multivariate analysis. Duration of the vasectomy surgery successfully had a significant inverse relationship with vasovasostomy results(OR=0.75,P-VALUE=.001). Age of the patients was significantly correlated with success rate of the vasovasostomy surgery(OR:0.81,PVALUE=0.005). In evaluating the effect of smoking on success rate of the surgery, both age and duration of vasectomy were known as confounding factors. (OR:0.11,P-VALUE=0.01). By logistic regression analysis, significant correlation was found between smoking and success. Inguinal surgery and complications after discharge were also factors that proved to be inversely correlated with success.

Conclusion: The revers relationship of different factors such as age, smoking, history of inguinal surgery, complications after discharge and the time past of vasectomy surgery with success rate of microscopic surgical vasovasostomy was confirmed. for example, patients who smoke had 89 percent higher infertility risk than those who do not smoke. Despite these factors examined in this study,it seems to be other factors not mentioned such as surgery technique and surgeon experience, and etc. that can affect the success rate of surgery. Further studies with larger sample size to evaluate the factors affecting vasovasostomy surgery are recommended.

Keywords: Microsurgical vasovasostomy, Vasectomy reversal, Vasectomy

O19: Evaluation of serum vitamin D and its correlation with total antioxidant capacity (TAC) in patients with polycystic ovary syndrome (PCOS)

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Background: There is few evidence about antioxidants properties of vitamin D. Recent studies suggest that oxidative stress may play a major role in the pathophysiology of polycystic ovary syndrome (PCOS). The aim of this study was to evaluate the correlation between serum 25-hydroxy vitamin D (25-OH-D) and total antioxidant capacity (TAC) in PCOS group compared to control group.

Methods: This case-control study was done on 60 women with PCOS and 90 healthy women as control group. All women were 20-40 years old who referred to Fatimah Zahra Infertility and Reproductive Health Research center, Babol, Iran. This study was approved by the Ethics Committee of Babol University of Medical Sciences. The control and patient groups were matched by age, weight, BMI and PCOS was diagnosed according to the Rotterdam criteria (2003). Serum levels of (25-OH-D) and TAC were measured using ELISA and FRAP methods respectively. Correlations between vitamin D and TAC were evaluated by spearman correlation test in both group.

Result: It was found that the mean of serum (25- OH-D) was lower in PCOS group (10.76 ± 4.17) than control group (12.07 ± 6.26), but this difference was not statistically significant (P = 0.125). TAC was significantly lower in PCOS group compared to control group (P= 0.002). No significant correlation was found between serums (25- OH- D) and TAC in both groups.

Conclusion: The findings indicated no significant differences in the serum vitamin D levels between PCOS patients and matched controls, also no correlation was observed between the serum vitamin D levels and total antioxidant capacity.

Keywords: Oxidative stress, Total antioxidant capacity, Vitamin D, Polycystic ovary syndrome

O20: Evaluation the effects of hydro-alcoholic extract of Achillea millefolium on in vitro fertilization (IVF) in mice

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Background: Achillea millefolium (AM) is one of the oldest and most well-known medicinal plants with potential antioxidant properties. The purpose of this study was to evaluate the effects of three different doses of hydro-alcoholic extract of AM on in vitro fertilization in mice.

Methods: Twenty four male adult NMRI mice were randomly arranged into 4 groups. Group 1 received normal saline (0.1 ml/kg), group 2 received extract of AM (75 mg/kg). Group 3 received extract of AM (150 mg/kg). Group 4 received extract of AM (300 mg/kg). Treatments were continued for 35 days. The oocytes were obtained from 15 mature female mice. Animals were anesthetized to easy draw, after extraction, normal sperm and fertilized oocytes were incubated for 120 hours in presence of HTF + 4 mg BSA. Statistical analyses were performed using ANOVA and Tukey test.

Result: In the groups receiving low and medium doses of AM, blastocyst formation and fertilization rate were increased, but not significantly compared to the control group. However, in the group receiving high dose of extract, blastocyst formation and fertilization rate was significantly decreased compared to the control group (P

Conclusion: In this study, AM has dose-dependent manner, so that at low and medium doses did not reveal significant effect, but high-dose of AM caused a significantly remarkable reduction in in vitro fertilization and embryos growth.

Keywords: Cyclophosphamide, Embryo toxicity, IVF, Mice, Achillea millefolium

O21: Multi-diversity of molecular PGD requests: a 7 year experience on 500 blastomeres

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Background: PGD has shown to be an effective approach for healthy fetuses for families who either do not want to go through routine prenatal diagnosis, are not allowed to abort the affected fetuses or want to select embryos with special characters.

Methods: A multicolor multiplexing STR based haplotyping method as well as Sanger sequencing were used to detect the fate of each embryo. In some cases, more than 30 fragments were amplified using array of primers which had been designed for PGD purpose or have been modified to be used so.

Result: During these years, more than 527 blastomeres for 106 cases were analyzed. In some cases, more than one round of PGD were performed. The PGDs were done for various purposes including beta-thalassemia, HLA typing, aneuploidy detection, sex selection, phenylketonuria, Fanconi anemia, etc. In most cases, more than one type of selection were applied and in some, three at a time like DMD, sex selection and QFPCR.

Conclusion: From these cases, more than 25% have ended up in pregnancies and several births of desired babies have resulted. Our result showed that with practice, strong bioinformatics infrastructure and multiplexing know how, one can perform and deliver accurate and reliable PDG results. Our expertise in molecular PGD can pave the way for others to deliver similar results. Strong IVF and gynecologists partners are essential for delivering viable embryos and fetuses.

Keywords: Blastomere, Embryo selection, HLA, IVF, Molecular, QFPCR, Thalassemia, PGD

O22: Sociological study on the transformation of fertility and childbearing concepts in Iran

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Background: Fertility and childbearing, in addition to the biological aspects, have always been regarded as a social phenomenon and, therefore, to understand the incident, values and beliefs, norms, and in short, the culture of any society should be scrutinized. Since the concept, condition, and value of childbearing are associated with cultural, social, political and economic dimensions, it has undergone various transformations during passage of time from past to present. The sociological approach of the current study investigated the evolution of the concept and value of fertility and childbearing in light of historical, social, cultural and economic upheavals. This study shows that the methods of rationalizing and legitimizing decisions about fertility and childbearing are defined and specified in the context of society. The rational for selecting the decisions is intermingled with social, cultural, economic, and political evolution of the society like modernization, urbanization and the level of development in human communities. Today, fertility, childbearing and the number of children are not only connected with the interpretations of the individuals about the conditions and micro and macro subjective and objective factors surrounding them, but they are also linked with factors such as family income, the amount of time parents allocate to their children, quality of child nurturing and other family variables.

Methods: -

Result: -

Conclusion: -

Keywords: Cultural change, Individualism, Social change, Socio economic transformation, Childbearing

O23: How does dietary vitamin E and fish oil in mice maternal diet affect litter size, sex ratio and offspring body weight?

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Background: We tested offspring characteristics in response to reciprocal combinations of sunflower and fish oils (FO) in the maternal diet with or without vitamin E (E).

Methods: Sixty-four mother mice were fed six isoenergetic and isonitrogenous diets (n=6) adlibitum during one week before mating to weaning. The dietary groups were standard diet (control; C), CLF and CHF groups which consumed 15 and 30 mg fish oil/100g of C diet, respectively. Moreover, a group received vitamin E supplemented diet (E) (two folded greater than standard recommendations) and ELF and EHF groups received 15 and 30 mg fish oil/100g E diet, respectively. All diets contain 3 percent oils which sunflower oil replaced with FO. After weaning, the offspring data were recorded and analyzed using SPSS software.

Result: Gestation length (19-21 days) as well as sex ratio did not differ. Although the litter sizes were unaltered by dietary E, it increased ($P< 0.05$) as FO was added to the control diet (8.1, 9.6, 11.8, 10.6, 10.6, and 9.6 offspring/mother for C, CLF, CHF, E, ELF, and EHF, respectively). Offspring body weights on weaning day were altered ($P< 0.05$) when FO added to control diets (15.3±1.72 vs. 13.3±2.45 and 11.9±4.45 g for C, CLF and CHF, respectively). EHF offspring body weight (14.4±1.60 g) were higher ($P< 0.05$) than E (13±3.36 g) and ELF (12±2.15 g).

Conclusion: FO or E cannot change sex ratio and gestation length. FO inclusion in control diet was beneficial in terms of litter size and detrimental for offspring body weights.

Keywords: Fish oil, Sex ratio, Vitamin E, Maternal nutrition

O24: Berberine promotes spermatogonial stem cells (SCCs) renewal in varicocele; evidence for GDNF, Gfrα1, C-Ret expression

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Background: Varicocele (VCL) is known as main cause of infertility in 15% to 20% of general population. Indeed, the VCL results in spermatogenesis arrest, severe depletion of seminiferous tubules and considerable reduction in sperm volume. Present study was done in order to evaluate the promoting effect of berberine against VCL-reduced spermatogonial stem cells (SCCs) renewal process.

Methods: Thirty mature male Wistar rats were randomly divided into control (NO: 6 rats), control-sham (NO: 6 rats) and experimental groups (NO: 18 rats). The animals in experimental groups were undergone experimental varicocele and simple laparatomy was conducted in control-sham group. The experimental group subdivided into: Non-treated VCL-induced, 50 mg/kg and 100 mg/kg berberine-treated groups. The mRNA and protein levels of GDNF and Bcl-6b were evaluated by using RT-PCR and western blotting techniques, respectively. The immunohistochemical staining was performed for representing GDNF and BCL6b-positive cells.

Result: Observations revealed a significant (P

Conclusion: Our data showed that, the berberine by up-regulating the GDNF, Gfrα1 and C-Ret expression accelerates/promotes the SCCs renewal process.

Keywords: C-Ret, GDNF, Gfrα1, Renewal, SCCs, Varicocele

O25: Melatonin reduces inflammation and apoptosis in mice ovaries following autotransplantation in the gluteus superficial muscle

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Background: Ovary transplantation is one of the most important ways to protect ovary function needed for post treatment fertility in cancer women. The aim was to investigate the effect of melatonin as a strong antioxidant on reducing inflammation and apoptosis following mice ovary auto-transplantation.

Methods: ó A number of 36 female NMRI mice (18±2) were divided into three groups (N = 12): control, autografted + saline (20 mg / kg / day) and autografted + melatonin (20 mg / kg / day by i.p injected), and each group was divided again into two subsets based on days 7 and 28 after transplantation (n = 6). Blood serum collected on day 7th for evaluating inflammation through the level of IL-6, IL-10 and TNFα, and 28th days after ovaries transplantation to estimate the apoptotic rate of follicles using Tunel staining. Data were analyzed using one-way ANOVA and Tukey's test and the means were considered significantly different at p

Result: The level of TNF-α, IL-6 and apoptotic rate of follicles increased significantly in the autografted + saline group compared to the control group. These parameters decreased significantly in the autografted + melatonin group when compared to the autografted + saline group, but not to the control level. IL-10 level in autografted + melatonin group was significantly increased compared to the autografted + saline group but not to the control level

Conclusion: Melatonin could effectively reduce inflammation and apoptosis leading to improve the ovaries transplantation in mice.

Keywords: Apoptosis, Inflammation, Melatoin, Ovary, Autotransplantation

O26: New insight into the molecular diagnosis of male infertility

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Background: Spermatogenesis is a complex process of proliferation and differentiation of male germ cells which regulated by many genes in transcription and post transcription level. MicroRNAs (miRNAs) are small non-coding RNA molecule function as post-transcriptional regulators of gene expression. They play a key role in regulation of early and late spermatogenesis, and reproduction. In this study, we investigate the role of miRNAs in infertile males.

Methods: The patients were assigned to five groups based on semen analysis (n=55), normozoospermic patients (N), moderate oligoasthenoteratozoospermic (MOAT), severe oligoasthenoteratozoospermic patients (SOAT), obstructive azoospermia (OA) and nonobstructive azoospermia (NOA). The expression of miR-34c and target gene P53 (tumor suppressor) was investigated using quantitative RT-PCR. In addition, Malondialdehyde (MDA) and DNA fragmentation were measured. Network analysis was performed using Pathway Studio web tool (Elsevier). Databased of gene, protein, microRNA, and small molecule interaction of Pathway Studio were constructed using Medscan language programming to highlight the possible role of miR- 34c and P53 gene. The ethics committee approved this consent procedure (registered number 66000116 at ethic committee of TUMA).

Result: The results revealed statistically significant increased expression of miR-34c in moderate oligoasthenoteratozoospermic, nonobstructive azoospermia and an increased expression of p53 in moderate oligoasthenoteratozoospermic, severe oligoasthenoteratozoospermic and nonobstructive azoospermia males. Also, the percentage of DNA fragmentation and oxidative stress was significantly higher in infertile groups (MOAT and SOAT)

Conclusion: These findings provide a novel molecular mechanism of gen regulation during cell-cycle and apoptosis in sperm which give a new regulatory insight into the molecular diagnosis of male infertility.

Keywords: miRNAs, Normozoospermic, Oligoasthenoteratozoospermic, Pathway Studio., Sperm

O27: An opioid-mediated polycystic ovary in Wistar rats

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Background: Polycystic ovary syndrome (PCOS) is a common endocrine disorder that affects 6-10 percent of women in fertility age. The development mechanism of PCOS has been widely studied in laboratory animals. However, the role of the opioid system on ventro-medial hypothalamus is still not clear. The aim of present study was to investigate the effect of morphine in this part on the ovary of Wistar rats.

Methods: Female Wistar rats, weighing 220-250g (in the diestrus phase) were cannulated under anesthetic by a stereotaxic device in the ventromedial hypothalamus (VMH) and spent a period of recovery. Afterwards, they were divided into four groups. The control group only received 1 µL of saline into their VMH. The group which was treated by morphine microinjection only received 0.1 to 0.4 µg of this opioid substance. The two remaining groups were treated by naloxone microinjection, and morphine injection preceded by naloxone pre-injection, respectively, in order to investigate the mediating role of opioid receptors. Three days later, the rats were killed and biopsies of ovaries were prepared for incision and staining. The results were analyzed by ANOVA test. Further analysis of the differences between the groups was conducted by means of Tukey's HSD post-hoc. p

Result: According to the findings, receiving morphine into VMH led to developing PCOS (p

Conclusion: As the competing antagonist of morphine, naloxone prevented the effect of morphine on the axis of HPG. This would make possible an opioid mediation in the occurrence of the symptoms of PCOS.

Keywords: Female rat, Naloxone, Polycystic ovary syndrome, Ventro-medial hypothalamus, Morphine

O28: Proteomic characteristics of human sperm after freezing–thawing treatment

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Background: Despite protective capacity of the seminal fluid during cryopreservation, sperm preparation methods should use to select mature and functional spermatozoa with low rates of apoptosis before cryopreservation. On the other hand, there is an association between dysfunctional spermatozoa due to cryoinjury and protein changes. The application of high-throughput proteomics to study the human sperm cell allows us to identify proteomic changes in human sperm cells throughout the cryopreservation.

Methods: we selected semen samples from normozoospermic men (n=36), after processing sperm with PureSperm gradient, each sample was divided into 2 aliquots: fresh and cryopreserved groups. Sperm quality parameters (motility ,apoptosis status, DNA fragmentation) evaluated after freezing-thawing, then proteins extracted for two different experimental conditions. Extracted proteins from each group were pooled and labeled with tandem mass tags (TMTs) coupled to LC-MS/MS. Bioinformatic analyses were performed using DAVID software. Candidate proteins were further validated by western blot analysis.

Result: We detected 2,912 proteins in human sperm where 238 and 191 proteins were respectively up and down-regulated in cryopreserved sperm compared to fresh sperm .The main down-regulated proteins were involved in metabolic processes and sperm-egg recognition.

Conclusion: Several proteins detected as deregulated could be candidates for diagnostic markers in pathogenic mechanisms involved in cryopreservation and given the unknown impact of some of these proteins on offspring health .This is the first study to compare protein levels in fresh and cryopreserved sperm without seminal plasma using the TMT technology coupled to LC-MS/MS.

Keywords: Sperm, Cryopreservation, Proteomics, Seminal plasma

O29: Detection of DNA fragmentation in infertile men with immotile short tail sperm (ISTS) referred to Royan institute

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Background: Male infertility is correlated with sperm morphology and sperm DNA damage, which are completely different from that of fertile individuals. Immotile short tail sperm (ISTS) is a rarely described morphologic disorder of spermatozoa that is characterized by tails of reduced length in 70%–100% of sperm, with defective axonemes. Moreover, sperm DNA fragmentation is shown to be associated with teratozospermia. The aim of the present study was to evaluate the DNA fragmentation in men with ISTS referred to Royan Institute.

Methods: The semen samples obtained from 30 men with normal spermogram and 30 patients with short tail sperm defect. DNA fragmentation were analysed by sperm chromatin structure assay (SCSA) and terminal desoxynucleotidyl transferase-mediated deoxyuridine triphosphate biotin nick-end labeling assay (tunel) respectively.

Result: The mean (±SD) of sperm with DNA fragmentation was significantly higher in immotile short tail sperm compared with control group, as measured by TUNEL assay (10.4516± 4.60318 versus 7.0333± 2.85854, P

Conclusion: Studies on correlations between sperm morphology and DNA integrity in patients with abnormal sperm morphology, especially patients with ISTS, are relatively rare. To our knowledge, the present study is one of the few studies which analyzed the relationships between sperm deformity rate and DNA integrity in men with short tail sperm. The results showed a positive correlation between abnormal sperm morphology and DNA fragmentation index.

Keywords: DNA fragmentation, Immotile short tail sperm, SCSA, TUNEL assay, Teratozospermia

O30: Exploring the challenge of adoption

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Background: Adopting another person's child by infertile couple might not alleviate their pain so much, but direct the suffering and pain of infertility towards parenthood and parental experience. Therefore, this study aimed to explore the challenges of adoption to assist in proper planning to improve the quality of adoption.

Methods: This qualitative study was conducted with conventional content analysis method on 25 women with primary and secondary infertility. The study was conducted in Vali-e-asr Reproductive Health Research Center, Tehran, Iran. Sampling method was done purposefully and data were gathered from semi-structured interviews. The interviews continued until saturation of the data. Concurrent with data collection, their analysis was done based on the conventional content analysis method.

Result: The main concepts derived from data were categorized into 3 main themes and their subthemes as follows: 1) Legal and cultural barriers (importance of blood ties, priority of treatment before deciding to adopt a child, and strict legal requirements), 2) The attitude of the husband towards adopted child (adoption as a good deed, husband preferred to continue the treatment as much as possible, the decision of the husband depends on the reaction of others around them, and preferring remarriage over adoption), 3) Attitude of the others (fear of disclosure

of adoption in the future and negative attitudes of the society).

Conclusion: The findings of this study showed that in our society, the importance of blood ties, cultural factors, and infertility treatment are among the barriers for adoption. The results show that it is critical to raise the awareness and enlightenment in society through the media to minimize the socio-cultural consequences of adoption.

Keywords: Adoption, Qualitative study, Infertility

O31: In vitro fertilization failure as a result of nanomicelle curcumin consumption

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Background: Nanomicelle curcumin (NCu) (as more effective form of curcumin), is assorted as one of the potential anti-cancer medications, which is widely consumed. Considering the importance of fertility, several studies were conducted in order to investigate the possible adverse impact of curcumin on fertilization potential; however the effects of NCu on zygote generation and percentage of pre-implantation embryos have not been assessed.

Methods: To perform this study, 24 male wistar rats were divided into control and 3 test groups (NO: 6 rats in each group). The animals in each test group received 7.5 mg/kg, 15 mg/kg and 30 mg/kg NCu (by gavages). Following 48 days, the sperm samples were collected and moved to mR1ECM medium. The oocytes were picked out from supreovulated (25 IU PMSG and 15 IU HCG) healthy female rats. Then, to perform in vitro fertilization (IVF), 10 µl from the sperm medium (containing 3.0-3.6 × 106 sperms) were added to each drop containing 10 -20 oocytes.

Result: The results revealed thatthe NCu remarkably (P

Conclusion: In conclusion, the NCu, even in 7.5 mg/kg dosage, possesses adverse effects on zygote generation as well as pre-implantation embryos development.

Keywords: Blastocyst, Hatched embryos, Two cell, Zygote, Nanomicelle curcumin

O32: Toll-like receptor signaling pathways in granulosa cells of infertile women suffering from Polycystic Ovarian Syndrome

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Background: Growing evidences indicate polycystic ovary syndrome (PCOS) is associated with innate immune responses and systemic inflammation. The aim of this study was to evaluate the expression of Toll -Like Receptors (TLR) signaling pathways downstream in patient with PCOS.

Methods: Twenty infertile PCOS patients and 20 normal women with male factor infertility as control group were enrolled. Granulosa cells was isolated using Ficol density gradient centrifugation. The expression of TLRs and signaling pathway molecules in granulosa cells were evaluated using real-time polymerase chain reaction. Macrophage migration

inhibitory factor (MIF), Interleukin-6 (IL6) and IL8 proteins in follicular fluid samples was measured by ELISA.

Result: The mean relative expression of TLR1-6, TLR8, TLR9, myeloid differentiation primary response gene 88 (MYD88), Toll-interleukin 1 receptor (TIR) domain-containing adapter protein (TIRAP), TIR-domain-containing adapter-inducing interferon-β (TRIF), TRIF-related adaptor molecule (TRAM) , Nuclear factor-kappa B (NF-kB), interferon regulatory transcription factor 3 (IRF3), interferon B (INFB), MIF, IL6 and IL8 genes was significantly higher in patients with PCOS in compare to normal women (P

Conclusion: Our findings suggested that TLRs gene overexpression and subsequently increased inflammatory markers such as MIF, IL6 and IL8 may be responsible for impaired folliculogenesis and oocyte maturation in PCOS.

Keywords: Follicular cells, NFkB, PCOS, TLR, Infertility

O33: The study of anti-inflammatory and anti-oxidant effect of l-carnitine in mice with induced polycystic ovary syndrome

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Background: Hyperandrogenism, anovulation and insulin resistance are symptoms of polycystic ovary syndrome (PCOS) related to low levels of serum L-carnitine. Inflammation and oxidative stress are involved in the pathogenesis of PCOS. The aim of this study was to investigate the effects of L-carnitine as an anti-oxidant in mice with experimental PCOS.

Methods: PCOS was induced through daily injections of testosterone enanthate (1 mg/100g body weight s.c.) for a period of 5 weeks. NMRI mice (3 weeks old) were divided into 4 groups (n=6): Control, PCOS, PCOS + L-carnitine and L-carnitine.Treatment was carried out with the dose of 500 mg/kg by i.p injections every other day for 4 weeks. At the end of treatment, serum levels of IL-6 and TNF-α, Malondialdehyde (MDA) and the antioxidant capacity were measured relatively using the ELISA kit, thiobarbituric acid (TBA) and Ferric reducing antioxidant power (FRAP) assay. Data were analyzed using one way ANOVA and Tukey's test and the means were considered significantly different at p

Result: The serum levels of IL-6, TNF-α and MDA significantly increased in the PCOS group compared to the control one while these parameters significantly reduced to the control level in the PCOS +L-carnitine group. Antioxidant capacity also reduced significantly in the PCOS group when compared to the control while it significantly increased in the PCOS+L-carnitine group to the control level.

Conclusion: L-carnitine could prevent oxidative stress and ameliorate the inflammatory markers in mice with PCOS.

Keywords: Antioxidant capacity, IL-6, L-carnitine, MDA, Mouse, TNF-α, Polycystic ovary syndrome

O34: Comparison of extra virgin olive oil and soybean oil in maternal isocaloric diet on transcriptional and osteogenic markers in bone of female mice offspring at adolescence

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Background: Recently, there is a new insight into the transcriptional regulation of osteogenic differentiation like runt-related gene 2 (Runx2), as well as osteogenic markers such as collagens (COLs), alkaline

phosphatase (Alk.ph) specific to each stage of the osteoblast life cycle. Maternal diet in fetal early growth (in utero and early postnatal life) predicts reduced bone mass, and so risk of fracture in later life. In the present study, we compared the effects of low and high amounts of extra virgin olive oil (EVOO), in an isocaloric diet, during gestation and lactation on gene expression of transcriptional and osteogenic markers in adolescent female mice offspring.

Methods: Virgin female C57BL/6 mice were impregnated and fed either the AIN 93G diet (received 16% of calorie as soybean oil [LFS] or EVOO [LFO]) or a high fat AIN 93G diet (received 45% of calorie as soybean oil [HFS] or EVOO [HFO]) from the time of vaginal plug confirmation until the offspring was weaned. Offspring were euthanized at 6 weeks and genes expression was measured by real time-PCR from the right femur.

Result: Runx2, Alk.ph and COLI were significantly higher in the offspring born from LFO than LFS, HFO than HFS and LFO than HFO-fed mothers (p

Conclusion: Maternal EVOO consumption during gestation and lactation lead to increase in transcriptional and osteogenic markers in bone of female mice offspring at adolescence.

Keywords: Dietary oil, Fetal programming, Gestation, Lactation, Osteoblastogenesis

O35: Frequency of Y chromosome microdeletions among infertile men undergoing Assisted Reproductive Techniques in the south of Iran

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Background: Y chromosome microdeletions of AZF region count for the second major genetic cause of male infertility. Y chromosome microdeletions are associated with abnormal spermatogenesis and it has been confirmed that these deletions are involved in Azoospermia and severe Oligozoospermia. However, the prevalence of these deletions and also the most frequent variant vary between different ethnic populations.

Methods: 97 infertile men who underwent ART as the case group and 100 fertile men as the control group were enrolled in this study. DNA was extracted from peripheral blood and tested for Y chromosome microdeletions by multiplex PCR of eight known Sequence-Tagged Sites (STSs).

Result: No deletion was detected in the control group. 20 out of 97 (20.6%) infertile men had Y chromosome microdeletion. Among these deletions, AZFc was the most frequent in 15 out of 20 cases (75 %), followed by AZFbc; in four cases (20 %) and AZFabc; in one case (5%).

Conclusion: Our study shows the relatively high frequency of Y chromosome microdeletions among Oligozoospermic and non-obstructive Azoospermic patients and based on the fact that these deletions reduce the success rate of Assisted Reproductive Technologies, screening Azoospermic patients for Y chromosome microdeletions before undergoing ART is strongly suggested.

Keywords: Azoospermia, Oligozoospermia, Y chromosome microdeletion, Assisted Reproductive Technologies

O36: IL-17 and IL-23 Cytokines Expression in Cumulus Cells and Follicular Fluid concentration in Patients with High Risk of Ovarian Hyperstimulation Syndrome

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Background: Ovarian Hyper Stimulation Syndrome (OHSS) is one of the major complications during assisted reproductive technology. The role of cytokines in the pathology of OHSS is an interesting research field in recent years. The study aims to determine the concentration of IL-17 and IL-23 in follicular fluid (FF) of infertile women at the risk of OHSS, undergoing assisted reproductive technology (ART). Also, the correlation between the expression of IL-17 and IL-23genes in cumulus cells and oocyte maturity was investigated.

Methods: The study was compromised of 80 women under the treatment of ART. Forty of them were at the risk of OHSS and considered as case group. The control group was the couples with male factor infertility (n=40). Antagonist protocol was applied for controlled ovarian hyperstimulation (COH). During the process of ovarian retrieval, the follicular fluid (FF) was harvested for all patients (case & control). Also the cumulus cells were collected for each patient, separately. Then IL-17 and IL-23 concentration was measured with ELISA in FF and their expression was evaluated in cumulus cells with real time-PCR. Besides, blood serum level of E2, FSH, LH, TSH, AMH, PRL and Anti-TPO was analyzed. Oocyte maturity rate was evaluated and the correlation between the rate of oocyte maturity and FF concentration of these two cytokines was evaluated.

Result: The concentration of E2 and AMH were significantly higher in case group compared to control (P

Conclusion: In infertile women with high risk of OHSS, FF level of IL-17 was significantly higher. So, we can propose that this cytokine may have critical role in pathogenesis of OHSS

Keywords: Controlled Ovarian Hyperstimulation, Follicular Fluid, IL-17, IL-23, Ovarian Hyperstimulation Syndrome

O37: Sperm content of PLC-ζ protein is related to semen analysis parameters

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Background: PLC-ζ deficiency in sperm can underlie oocyte activation failure after ICSI. Fertilization failure during in vitro fertilization (IVF) occurs in approximately 4%–7% of couples. It is believed that PLC-ζ expression varies notably in sperm from normal fertile males, and it may vary between ejaculates from the same person. In This study sperm content of PLC-ζ protein was evaluated by flow cytometry correlated with clinical semen analysis parameters.

Methods: Fresh semen samples were obtained from 30 men who attended the Andrology Unit of the Shahid beheshti hospital Fertility and Infertility Center. After semen liquefaction semen analysis performed according to the World Health Organization (WHO, 2010) criteria. Sperm samples were processed by density gradient. Flow cytometry was used as a quantitative method for the measurement of sperm PLC-ζ content. Pearson correlation coefficient was calculated to measure correlation between the distribution patterns of PLCζ and the different sperm parameters.

Result: The mean sperm concentration was determined in the semen analysis was 69.56 ± 11.4 million/ml (mean±SD) with ranged from 8 to 233 million/ml means sperm mo¬tility was 40.08 % ± 11.3 as well as mean sperm normal morphology was 7.6 ± 0.39 with a mini¬mum and maximum 5 to 12%.There was positive correlation between the levels of PLC-ζ and normal morphology (r=0.6 P=0.002). However, no significant correlation was observed between PLC-ζ expression, motility or concentration.

Conclusion: Our clinical data demonstrate significant correlations between sperm PLC-ζ levels and normal morphology in sperm

Keywords: Intracytoplasmic sperm injection, Sperm, Flow cytometry, Oocyte activation, Phophospholipase C zeta

O38: A comparison of Dual triggering by administration of GnRH agonist plus HCG versus HCG in normal responders in ART outcomes

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Background: The fact that gene expression pattern and downstream signaling of LH receptors is different between hCG and GnRH-a triggered patients made several investigators to study the effect of coadministration of GnRH-a and hCG triggering to improve ART outcomes[10-12] Several studies in high responders showed significant improvement in IVF outcomes when a dual trigger was used without a significant increase in the OHSS rate. Simultaneousadministration of standard dose of hCG and GnRH agonists for triggering the final oocyte maturation has been studied in a limited number of studies

Methods: This double-blind randomized controlled trial was performed at the Research and Clinical Center for Infertility,Shahid Sadoughi University of medical Sciences between April 2014 until February 2015 This study was approved by the ethical committee of the Reasearch and Clinical Center for Infertility,Yazd on 22 June , 2014.(Reference code:315).The study was registered under IRCT2015031221420N2.210 patients began ovarian stimulation with a flexible GnRH antagonist protocol for 5 consecutive days. Once the leading follicle had reached a size of 13 mm, co-treatment with the GnRH antagonist 0.25 mg/day, was initiated. Gonadotropins doses were further adjusted according to vaginal ultrasound measurements of follicular diameter,obtained every two or three days. When at least two leading follicles had reached 17 mm in diameter, final oocyte maturation was triggered by either 6500 I.U. hCG alone, or by 6500 IU hCG plus 0.2 mg of triptorelin (Decapeptyl; Ferring GmbH).Oocyte retrievals were performed under transvaginal ultrasound guidance 34 to 36 hours after triggering. All embryo transfers were performed 48 to72 hours after oocyte retrieval. The luteal phase was supported by daily progesterone suppositories(total dose 800mg) starting on the day of oocyte retrieval.

Result: Although mean number of oocytes retrieved and mature metaphase II (MII) oocytes and obtained embryos were higher in the dual-trigger group compared with the controls, the observed differences were short of reaching statistical significance.The differences of OHSS rate between the two groups werenot statistically significant

Conclusion: The results of our study did not confirm the favorable effect of dual-triggered oocyte maturation with a GnRH-agonist and a standard dosage of hCG as an effective strategy to optimize pregnancy outcome for normal responders in GnRH-antagonist cycles. We think that this new concept require more study before becoming a universal COH protocol in IVFpractice.

Keywords: ART, GnRH, HCG

O39: The factor analysis of health related quality of life among women with polycystic ovary syndrome (PCOSQ-50)

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Background: More studies indicate diminished health related quality of life (HRQoL) among women with polycystic ovary syndrome (PCOS). The purpose of this study was to Exploratory and Confirmatory factor structure of HRQoL in women with PCOS (PCOSQ-50). In addition, internal consistency and test–retest analyses were used to assess the reliability of the instrument.

Methods: A cross-sectional study was conducted to assess the construct validity of the PCOSQ-50. First, the development of HRQoL in women with PCOS was designed based on qualitative research. The details of this phase have been previously published. After that by convenience sampling method 350 women with PCOS attending three clinics (gynecologic, endocrinology, and dermatology) at two teaching

hospitals, affiliated to the Babol University of Medical Sciences, were selected. After explaining the objectives of the study, written informed consent was obtained from each participant and they were requested to complete the questionnaires. The Kaiser-Meyer Olkin test was used to assess the sampling adequacy, a cutoff point of 0.40 was considered as the minimum load factor required in maintaining each item of the factor being extracted. The Exploratory and Confirmatory Factor Analysis was done by SPSS and LISLER software respectively.

Result: The principal component analysis indicated a six -factor structure for the questionnaire (psychosocial and emotional, self-body image, fertility, sexual function, obesity and menstrual disorder and hirsutism) that jointly accounted for 50.83 % of variances observed. Reliability of questionnaire with Cronbach's alpha coefficient for six factor showed that the range between 0.87 -0.95 and for whole questionnaire 0.92. The 43-item model was supported by the confirmatory factory analysis. Compared to the 50-item model, the 43-item model showed a marked improvement on several incremental fit indices and achieved a more parsimonious model fit. The fit indexes were as follows: RMSEA = 0.09, NFI = 0.90, CFI = 0.91, IFI = 0.91, GFI = 0.60 and SRMR = 0.09.

Conclusion: The 43-item PCOSQ is psychometrically superior to the original. However, its predictive efficacy needs to be examined in longitudinal studies.

Keywords: Polycystic ovary syndrome; Quality of life; Factor analysis; Reliability

O40: Association Study of the miR196a2 Polymorphism with the Risk of Idiopathic Recurrent Pregnancy Loss

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Background: MicroRNAs (miRNAs) are short non-coding RNAs, which control gene expression by binding to complementary pieces' present in the 3'UTR of the mRNAs of protein coding genes. MiRNAs play very important roles in maintaining normal human body physiology conditions, meanwhile, abnormal miRNA expressions have been found related to many human diseases spanning from psychiatric disorders to malignant tumors. Single nucleotide polymorphisms (SNPs) within precursor microRNAs (miRNAs) can disturb miRNAs expression, and may be complicated in the pathogenesis of recurrent pregnancy loss (RPL). Recently, developing reports have indicated that disturbed miRNAs expression and genomic mutations contributed to the pathogenesis of recurrent pregnancy loss (RPL). This study aimed to investigate potential associations between the precursor miRNA SNP miR-196a2 T > C and susceptibility to RPL.

Methods: we analyzed miR-196a2 T>C polymorphisms by RFLP technique in 100 IRAN, Tabriz RPL patients that suffer RPL. The allele and genotype frequencies for all populations were analyzed. Linkage disequilibrium was performed.

Result: Data analysis of the RPL and non-RPL groups for miR-196a2 T>C polymorphism showed no significant association between the groups (p= 0.904; OR = 0.97; 95% CI, 0.61-1.32).

Conclusion: These data suggested that T>C mutation in pri-miR-196a2 coding region doesn't contribute to the genetic predisposition to RPL.

Keywords: miR-196a2, Recurrent pregnancy loss, Single-nucleotide polymorphism, MicroRNAs

O41: Investigation of Liraglutide Effects on Oogenesis in NMRI Mice

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Background: In recent decades pregnancy is known as a fundamental problem for young couples. Type 2 diabetes is one of the infertility reason that for control and treatment of this disease many medications have been proposed. But many of them have serious complications on fertility. One of these drug is Liraglutide that is used to treat type 2 diabetes where have been shown that has various effects on different parts of body. Since the women may be suffering from type 2 diabetes, effects of this drug on the ovary is very important and necessary. In this research effect of Liraglutide on oogenesis in NMRI Mice in In vivo condition have been investigated.

Methods: This study has been done on 30 adult female NMRI mice (8 to 12 weeks) that have been selected with body weight between 25 and 30 grams. Female mice were randomly divided into four groups: control, sham and two experimental groups. Experimental and sham groups were injected Liraglutide with 0.6 and 1.8 mg/ml density and solution for 30 days respectively and all were injected subcutaneously. The collected data were analyzed using one-way analyses and Tukey test.

Result: The results of using Liraglutide has been shown marked decrease on number of Primordial follicles in experimental groups. Also the number of Primary, secondary, Graaf, atretic follicles, the corpus luteum and blood vessels have marked increase. In addition the diameter of primary follicles, corpus luteum and the blood vessels reduced. On the other hand the diameter of primordial, secondary and atretic follicles has shown marked increase.

Conclusion: Regarding that using Liraglutide increases the number of secondary follicles and these follicles decrease time fertility limitation, therefore this drug cause to premature aging of the ovaries and reduce the probability fertility.

Keywords: follicle, NMRI mouse strain, oogenesis, ovary changes, Liraglutide

O42: Tribulus terrestris extract improves human sperm parameters in vitro

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Background: T. Terrestris (Tribulus terrestris) is a medicinal plant which is used in treatment of various disorders such as male infertility. The object of the present study was to investigate the in vitro effects of direct addition of T. Terrestris extract on human sperm motility, viability and DNA fragmentation.

Methods: Semen specimens from 40 healthy men volunteers were divided into four equal groups: one was as-received with no treatment (control group) while the others were incubated with 20, 40 and 50 µg/ml of T. Terrestris extract (experimental groups). Sperm motility, viability and DNA fragmentation were checked after 0, 15, 30, 60 and 120 minutes for all the groups. Motility and viability were assessed according to WHO criteria.

Result: The results of the experiments showed that the incubation of human semen with 40 and 50 µg/ml of T. Terrestris extract (groups 3 and 4) for 0 and 30 min holding time had no effect on total sperm motility, number of progressive motile spermatozoa and curvilinear velocity, whereas, these parameters were significantly enhanced over 60 to 120 min holding time ($P < 0.05$ or < 0.01). Furthermore, viability was significantly enhanced by using T. Terrestris extract ($P < 0.01$).

Conclusion: In vitro addition of the T. Terrestris extract to human sperm could improve the male fertility capacity.

Keywords: DNA fragmentation, Human sperm, Motility, Viability, T. Terrestris

O43: Evaluation of Effect of training classes for married couples about healthy sexuality and its effective factors in Health Center Mashhad (2)

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Background: Considering that sexual relations is an important part of their life, One of the main factors of

discontent and divorce is the lack of sexual satisfaction Therefore the education to young couples in marriage classes can prevent a lot of problems We decided to study the Effect of training classes for married couples about healthy sexuality and its effective factors in Health Center Mashhad (2)

Methods: This interventional study about 303 men and women referred to classes during the marriage was performed using simple random sampling and to collect data from a researcher-made questionnaire was used and scores were analyzed by paired t-test

Result: In the sample studied in knowledge after intervention 9.99±12.1) compared to pre-intervention scores (3.25±8.35) was significantly increased (P

Conclusion: According to results of the project, While married couples have a very low level information And greatly contributed to increase the information available classes is capable But according to a survey conducted These classes despite the impact of existing, Responsive to the educational needs of couples in the field of sexual relationship is not And managers must to consider additional training programs in the form of classes or counseling efforts are needed

Keywords: Safe sex - Couple - training

Poster Presentations

P1: *In vitro* cytotoxicity of gold nanorods on viability of mouse acute lymphoblastic leukemia and Spermatogonial stem cells

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Background: Testicular cancer has one of the highest cure rates of all cancers. The biomedical applications of nanoparticles (NPs) in biological imaging, drug delivery, photothermal therapy have been demonstrated. Gold nanorods (GNRs) as new biomedical tools are the focus of research due to their ease of synthesis, chemical stability, and unique optical properties. The purpose of this study was to evaluate *in vitro* cytotoxicity of GNRs on the viability of SSCs and mouse acute lymphoblastic leukemia (EL4).
Methods and materials: We isolated SSCs from the 3–6-day-old mice, following enzymatic digestions and purification steps. Also we provided EL4 cells from Pasteur Institute. We used multiple doses of GNRs that consisted of 50, 75, 100, 125 and 140 µM of GNRs. To determine the toxicity we performed MTT assay. To confirm the identity of the El4 and SSCs, flow cytometry was used. Differences between groups were assessed by One-way ANOVA using the SPSS version 16.0 software.
Results. The results of flow cytometry show that SSCs and EL4 cells were respectively PLZF and H-2kb positive. The percentage cytotoxicity of SSCs and EL4 cells that were treated with 50, 75, 100, 125 and 140 µM of GNRs was respectively 40.6±1.1%, 44.8±1.3%, 51.2±2.1%, 70.6±1.9%, 85.6±2.07% for SSCs and also 45.8±1.4%, 60.6±1.5%, 86.4±2.07%, 91.8±1.9% and 95.4±1.5% for EL4 cells. We observed that cell death of GNRs increased with an increase in the quantity of GNRs.
Conclusions: The results show that the optimal mean dose for highest cell death in EL4 cells and lowest in SSCs is 100 µM of GNRs.

Keywords: Cytotoxicity, Gold Nanorods (GNRs), Mouse acute lymphoblastic leukemia (EL4), Spermatogonial stem cells (SSCs).

P2: Future of spermatogonial stem cell culture: Application of nanofiber scaffolds

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Abstract: The regulation of mouse embryonic stem cell (mESC) fate is controlled by the interplay of signaling networks that either promote self-renewal or induce differentiation.
The spermatogonial stem cells (SSCs) are unique in mammals because they can transmit genetic information from generation to generation and it is of great importance. In testes, Sertoli cells, peritubular myoid cells, Leydig cells and other interstitial cells contribute to the spermatogonial stem cell “niche”. So, creation of niche in in vitro condition that mimic in vivo environment is essential to maintain functional characteristic of SSCs. Nanofiber matrices mimic the architecture and size scale of the natural extracellular matrix (ECM). The scaffold provides more three-dimensional (3D) biomimicking topographical signals to seeded cells and results in a more physiologically relevant cellular phenotype. Several investigators use different nanofiber scaffold like carbon nanotubes (CNTs) scaffold, poly L-lactic acid (PLLA) nanofiber scaffold, 3D soft agar culture system, human serum albumin (HSA)/tri calcium phosphate nanoparticles > (TCPNPs) and electro spun polyamide nanofiber for proliferation and maintenance of self-renewal activity

of SSCs. Application of nanofiber scaffolds in in vitro culture of SSCs may produce surplus of cells, that can be use in regenerative medicine, tissue engineering, assisted reproductive technology and in treatment of disease like pre-pubertal cancer. In this review, we describe the impact of nanofiber scaffolds on culture of SSCs derived from human-to-rat.

Keywords: Culture system, ECM, Nanofiber scaffold, PLLA, Spermatogonial stem cells.

P3: The relationship between fertility and lifespan in humans

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Background: Evolutionary theories of aging predict a trade-off between fertility and lifespan, where increased lifespan comes at the cost of reduced fertility. Studies in model organisms have provided evidence for this prediction . To date, a number of genes have been identified to influence female fertility. In addition, it has been estimated that the heritability of female lifetime reproductive success in a contemporary population is 22% whereas in a preindustrial population, it was estimated to reach 47%.

Methods: we first analyzed the association of fertility with age at menarche and menopause, and with mortality in 200 married female participants of the Tehran. In addition, we conducted a candidate gene study where 120 single nucleotide polymorphisms (SNPs) in 12 candidate genes were analyzed in relation to number of children as a measure of fertility.

Result: SNPs that associated with fertility were analyzed for association with mortality. We observed no associations between fertility and age at menarche ($p = 0.24$) and menopause ($p = 0.05$). In contrast, fertility was associated with mortality. Women with two to three children had significantly lower mortality (hazard ratio (HR), 0.86; 95% confidence interval (95% CI), 0.70–0.97) compared to women with no children.

Conclusion: No such benefit was observed for women with four or more children, who had a similar mortality risk (HR, 0.93; 95% CI, 0.76–1.13) as women with no children. The analysis of candidate genes revealed four genes that influence fertility after correction for multiple testing: CGB/LHB gene cluster ($p = 0.0129$), FSHR ($p = 0.014$), FST ($p = 0.012$), and INHBA ($p = 0.009$). However, none of the independent SNPs in these genes predicted mortality. In conclusion, women who bear two to three children live longer than those who bear none or many children, but this relationship was not mediated by the candidate genes analyzed in this study.

Keywords: DNA, Lifespan , Fertility

P4: Interrelationships between apoptosis and fertility in sperm

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Background: The quality of paternal DNA transmitted through sperm is an important factor for maintaining the reproductive potential of males, fertilization, embryonic development, and beyond. Apoptosis or programmed cell death is a major factor proposed to cause DNA damage in spermatozoa before and after spermatogenesis. Signals for the extrinsic pathway are activated by receptors from the tumor necrosis factor family (TNF's), and signals for the intrinsic pathway are triggered by factors such as oxidative stress and nuclear or mitochondrial DNA damage.

Methods: DNA damage, phosphatidylserine (PS) translocation, and expression of pro- and anti-apoptotic proteins (BAX and BCL-2) in the sperm were determined using TUNEL, Annexin V, and immunoblotting approaches, respectively. Amounts of apoptotic spermatozoa were 2.86 (± 1.12) and 3.00 (± 0.89) in high and low fertility , respectively (P=0.621), and were not correlated with fertility.

Result: There was a negative correlation between early necrotic spermatozoa and viable spermatozoa (r = –0.99, P

Conclusion: This difference was not statistically significant due to the variations of samples (1–3 vs. 4–5) in low fertile group (P

Keywords: Apoptosis, DNA damage, Male infertility , Sperm

P5: The effects of sertoli cell condition medium and retinoic acid on cell viability and apoptotic morphology of bone marrow mesenchymal stem cells

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Background: Differentiation of germ cells from other cell source could have great application for treatment of infertility. In this study, the effects of retinoic acid (as differentiation inducer) and sertoli cell condition medium were evaluated on viability and morphology of bone marrow mesenchymal stem cells.

Methods: MSCs were extracted from femur and tibia bone marrow by aspiration method. The samples were transferred directly into 75-cm3 flasks and suspended in low-glucose DMEM containing 10% fetal calf serum (FBS) and 5% (v/v) CO2 at 37•C. The medium was changed every three days. After 70-80 % confluency in culture system, the cells were isolated by trypsin-EDTA and counted with trypan blue, then adjusted to desired densities (2× 10 5) into each well of a 6-well multidish in three groups: 1) in the presence of 10 -6 M retinoic acid 2) in the presence of sertoli cell conditioned medium 3) in the presence of retinoic acid + sertoli cell conditioned medium for 7 days. In the end of culture cell viability was evaluated by MTT assay test. Morphology of the apoptotic cells in culture system was assayed by etidium bromide/acridin orange (EB/AO) staining and DAPI test.

Result: The results revealed that rate of apoptotic cells were significantly increased in RA only treated group on days 10 and 15 of culture (respectively 21/15 ± 1/7 and 23/25 ± 6/15) (P

Conclusion: With considering to differentiation effects of RA, by adding condition medium to RA only treated group, low rate of apoptotic cells are observed in culture system that it is suitable for cell trophy.

Keywords: cell viability, Condition medium, Retinoic acid, Mesenchymal stem cell

P6: Growth kinetics, characterization, and plasticity of human menstrual blood Stem Cells

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Background: Men-SCs are widely available (about 12 times a year from a regular-cycle woman) and are capable of long-term proliferation; they can also be obtained via a noninvasive procedure easily. In recent years, MenSCs have been deemed an easily accessible and refreshing stem cell source with no ethical considerations in the field of regenerative medicine. There are several reports on the differentiation of MenSCs into osteoblasts,7 nucleus cardiomyocytes,8 glial-like cells,9 pulposus-like cells,10 hepatocyte-like cells,11 adipocytes,12 and chondrocytes.13 Men-SCs are widely regarded as a new source of MSCs with several potential therapeutic applications; nonetheless, there is a dearth of data in the existing literature on their growth kinetics. The present study was designed to isolate, culture, and determine the growth kinetics and characterization of Men-SCs in women in 2 age groups of 30 to 40 and 40 to 50 years old.

Methods: During spring 2014, menstrual blood specimens were collected from 10 volunteer women who referred to the department of obstetrics and gynecology of hospitals affiliated to Shiraz University of Medical Sciences, Shiraz, Southern Iran (5 aged between 30 and 40 years and 5 aged between 40 and 50 years). All the women were on their third day of

bleeding period, and the samples were collected with menstrual cups (Diva Cup Co., U.S.A.) inserted deeply into the vagina. All the candidates were healthy and without any history of previous genital diseases. Before the insertion of the cups, sanitary disinfectant pads were used to prevent the local bacterial flora from contaminating the samples. The collection procedure was approved only for research purposes by the institutional ethics committee, and the donors signed a written informed consent form. The sample volume obtained from each participant was 5 mL, and they were separately added to falcons containing 10% sodium citrate and 1% penicillin/streptomycin (Gibco, Germany). Subsequently, the samples were transferred to the Stem Cell Laboratory of The Stem Cell and Transgenic Technology Research Center, Shiraz University of Medical Sciences, Shiraz, Iran, for further evaluation. Isolation of Mononuclear Cells Menstrual blood was gently added to an equal volume of Ficoll under laminar flow hood condition (Class II, Jal Tajhiz, Iran). Ficoll-Paque (Biowest, France) density-gradient centrifugation was performed at 1,200 rpm for 30 minutes at 4.C, resulting in the separation of the contents in four fractions (i.e., red blood cells, Ficoll, mononuclear cells, and plasma). In brief, the transparent fraction of the mononuclear cells was separated and added to a threefold volume of Dulbecco's Modified Eagle's Medium-F12 (DMEM-F12, Biowest, France), supplemented with 10% fetal bovine serum (FBS) (BioIdea, Iran), 1% penicillin/streptomycin (Biowest, France), and 1% L-glutamine (BioIdea, Iran). Culturing the menstrual blood-derived stem cells after centrifugation and removal of the supernatant, the cell pellet was suspended in 6 mL of fresh DMEM-F12 media, supplemented with 10% FBS, 1% penicillin/streptomycin, and 1% L-glutamine, and was then transferred into T25 flasks. The flasks were kept in a CO2 incubator (Memmert, Germany) at 37°C, 5% CO2, and saturated humidity. The media were replaced twice a week.The primary culture (P0) was trypsinized (Trypsin, Sigma, U.S.A.) after 10 days and was transferred into new T25 culture flasks (P1, the first passage). After 3 days, the cells were evaluated for adherence, confluence, and morphology using an inverted light microscope (Nikon, Japan). When the adherent spindle- shaped cells attained 70–80% confluence, the time was considered optimum for harvesting the cells by trypsin and starting subculturing. Passaging the cells of each of the 10 samples was continued up to P4; and at the end of each passage, the number of live and dead cells was determined via the dye-exclusion method. The cell-counting and cell-staining procedures were carried out using a Neubauer chamber and trypan blue (Sigma, U.S.A.), respectively. The passage 4 cells of both age groups were seeded into 12- and 24-well culture plates at a density of 5×104 cells per well to evaluate the growth kinetics and study the in vitro behavior of the Men-SCs. The cells were counted every 24 hours (each time 3 wells/group). This procedure was continued for 8 days, and the mean number of the cells at each time point was depicted using GraphPad Prism (version 5.01; GraphPad Software Inc., San Diego, CA, U.S.A.). The following formula was used to determine population doubling time (PDT): T×ln2/ln (Xe/Xb), while Xe, Xb, and T were defined as the final cell number, the initial cell number, and the incubation time in any unit, respectively.

Result: Following cell expansion, the adherent Men-SCs obtained from both groups of women revealed a spindle-shaped, fibroblast-like morphology similar to the typical appearance of MSCs in the primary culture and passage 2 (Figures 1a and b). About 3 to 5 days were needed for the cells of each passage to reach the confluence of 70 to 80%, except for the primary passage, which took 10 days. The results from the culture of the Men-SCs of the women aged between 30 and 40 years when seeding 5×104 cells into 12- and 24-well culture plates revealed PDT values of 55.5 and 62 hours, respectively (Figures 2a, g, and H). However, for the women aged between 40 and 50 years, PDT values were 70.4 and 72.4 hours, correspondingly (Figures 2b, e, and f). According to the cell enumeration findings in either the 12- or the 24-well plates, the growth of the Men-SCs in the women aged between 30 and 40 years was significantly more than that in the women aged between 40 and 50 years (Figures 2c and 2d; P

Conclusion: MSCs can be isolated from several adult tissue sources. They show progenitor cell-like features such as proliferation and differentiation capacities. One of the most historically prominent sources of MSCs has been the bone marrow, while other sources recently includethe adipose tissue, bone, muscle, liver, pancreas, tooth, umbilical cord, placenta, and cord blood. The isolation of these progenitor cells requires traumatic procedures that are poorly feasible and associated with patient discomfort.2 Menstrual blood has been considered one of the most accessible sources for obtaining MSCs noninvasively. 14 Recently, there has been a great deal of interests in the application of these cells in regenerative medicine due to their

multilineage and highly proliferative features.14 Men-SCs have been introduced as a good source of cell transplantation for various therapeutic procedures such as the treatment of premature ovarian failure.14 In cell expansion, one of the most prominent criteria is the morphology of cultured cells.15 In our study, similar to previous findings, during subcultures, the Men-SCs displayed a spindle-shaped, fibroblast-like morphology under light microscopy, resembling the typical appearance of MSCs derived from other adult tissues.14 It has been previously shown that Men-SCs are more uniform in shape and size (10 to 100 .) than are the cells obtained from other tissues.

Keywords: Mesenchymal stem cells, Plasticity, Reverse transcriptase polymerase chain reaction, Menstrual blood

P7: The necessity of ureterolysis during laparoscopic excision of deep infiltrating endometriosis lesions

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Background: Surgical interventions aim to remove visible areas of endometriosis and restore the anatomy. Comparing with incomplete excision, the complete excision of deep infiltrative endometriosis has been shown that can significantly decrease post-operative pain, recurrence rate and also postoperative complications. We aimed to demonstrate the frequency of ureterolysis in deep endometriosis laparoscopic surgeries in order to do complete excision of deep endometriosis lesions and to reduce damage to ureters during these difficult surgeries.

Methods: 201 patients with main chief compliant of dysmenorhea and dysparuenea (measured by verbal analog scale) were referred to our center for laparoscopic surgery. We defined expected difficulty of the surgery and also difficulty and complication score of the surgery which were scored for each patient (0=the least difficulty or complications and 10=the greatest difficulty or complications). We used a logistic regression model to analyze the correlation between doing uretrolysis with the scores of dysmenorhea , dysparuonea , expected difficulty , difficulty and complications of the surgery. Mann–Whitney and independent t test were also used for relation of doing uretrolysis with dysmenorrhea ,dysparounea and expected difficulty scores.

Result: Mean age of patients was 31.17 years (SE=0.416). Mean dysmenorhea score in non uretrolysis and ureterolysis groups were 3.97±0.657 and 6.92±0.236 respectively. Also, mean dysparuonea score for non-ureterolysis and ureterolysis groups were 1.91±2.87 and 2.47±3.16 respectively. The overall percentage of our logistic regression model was 90%. There was a significant correlation between doing uretrolysis and difficulty score of surgery (b=0.698 p=0.007) and complication score (β=0.896,p=0.021). There was significant relationship between uretrolysis and dysmenorhea score(p=0.000), uretrolysis and dysparuonea score was not significant(p=0.348)(independent t test p= o.312). Only 61 patients had expected difficulty score. Mean expected difficulty for non uretrolysis and for uretrolysis group was (6.29±o.993) and (8.17±0.274) respectively. There was significant relationship between doing uretrolysis and expected difiiculy score (p=0.02).

Conclusion: Doing ureterolysis in endometriosis laparoscopic surgeries significantly can increase difficulty of our surgeries but it significantly can decrease postoperative complications.

Keywords: Deep infiltrating endometriosis, Pelvic pain, Recurrence, Uretrolysis, Endometriosis

P8: Correlation of sperm damaged membrane with protamine deficiency and apoptosis

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Background: The first step of the evaluation for fertilization potential in men is semen analysis. Before assisted reproduction techniques, routinely, preparation of samples is performed by Density gradient centrifuge (DGC) or swim up procedures and, abnormal sperm in relation to morphology and motility is removed. But this procedure does not guarantee sperm DNA integrity. Therefore, several sperm preparation procedures have been developed based on cellular and molecular characteristics including membrane properties of spermatozoa that its damage has shown a significant correlation with DNA damage. One technique reflecting the membrane integrity is hypo-osmotic swelling test which has been used to evaluate sperm viability and membrane integrity. Therefore, we aimed to assess correlation between abnormal sperm morphology, protamine deficiency and the early stages of apoptosis with together after exposing the sperms to hypotonic condition.

Methods: We used twenty five randomly collected semen samples. Washed semen samples were exposed to hypotonic condition, then assessed for abnormal morphology, protamine deficiency and the early stages of apoptosis using papanicoulau, CMA3 staining and Annexin V techniques, respectively.

Result: The result shows that the percentage of HOST negative sperm has significant correlation with percentages sperms with abnormal morphology (P=.0.02), protamine deficiency (P=0.001) and apoptotic sperm (P=0.006).

Conclusion: Sperm with damaged membrane shows high rate of protamine deficiency and apoptosis mark. Therefore, this sperm are more prone to DNA damage. However, further studies will be needed to confirm this result.

Keywords: Apoptosis, Membrane integrity, HOST, Protamine deficiency

P9: A histopathology study of testis after experimentally induced varicocele in rat

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Background: Varicocele is an abnormal enlargement of the pampiniform plexus in the spermatic cord. Adverse effect of varicocele on spermatogenesis can cause alterations in sperm concentration, motility, and morphology. And also some of the most common disorders include shrinking testicles, progressive impairment of testis, atrophy of the bilateral testis caused by varicocele. The varicocele affects not only the physiology of testis but also the histopathology of it. Therefore, studies on the association of a varicocele with male infertility are still required to improve our understanding of etiology of varicocele and male infertility. In this study, we aimed to demonstrate adverse effects of varicocele on testicular histopathology alterations.

Methods: A total of 30 Wistar rats were randomly divided into three groups: surgically induced left varicocele, sham-operated, and untreated controls. Two months after surgery, animals were euthanized with ether. Then left testes were collected, processed, and stained with H&E. Johnsen scores and histological abnormalities were evaluated for each testis.

Result: There were significant different between the Johnsen scores in the control and varicocele induced testes. Histopathological studies in rats shown that the varicocele induction inhibits spermatogenesis and degenerate the GE (germinal epithelium) of seminiferous tubules. The changes in tissue of testes was observed in the form of irregular degenerated seminiferous tubules with numerous blood vessels and thickened basement membranes.

Conclusion: Our results demonstrate that following varicocele induction, major alterations occur in testis which may lead to loss of GE cells physiological function and ultimately result in impairment of sperm production and fertility problems.

Keywords: Rat, Testis, Varicocele, Histopathology

P10: Cytogenetic and molecular studies of Y chromosome microdeletions in AZF gene deletions in infertile men in Northwest of Iran

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Background: Genetic factors involved about 15% of male infertility. Azoospermia factors of Y chromosome are very important for spermatogenesis. Microdeletions in the azoospermia factor regions on the long arm of Y chromosome are mainly associated with spermatogenic defect. We investigated the chromosomal abnormalities, frequency and types of Y-chromosome microdeletions in non-obstructive azoospermic infertile males in our region. The goal of this study was evaluation of karyotype and frequency of microdeletions in infertile men.

Methods: The study contained 100 infertile males. Chromosome analysis was performed on peripheral blood lymphocytes according to standard method. Multiplex PCR assay for microdeletion was performed by using markers of AZF region of Y chromosome.

Result: Five infertile males (5%) carried chromosomal abnormalities, including 2 patients with Klinefelter syndromes and 1 of the patients with robertsonian translocations der (13;15), 1 of the patients with robertsonian translocations der (13;14) and one patient 46, XY[51] / 47, XY, + mar[11] . The deletions of Y chromosome were seen in 15 patients (15%) with features of normal karyotype. 9 patients were seen microdeletion in the AZFc region and in 4 of the patients in the AZFb region and in 2 of patients were seen microdeletions in the AZFd region. Neither AZFa microdeletions were detected.

Conclusion: The occurrence of chromosomal anomalies and Y chromosome microdeletions among infertile males strongly suggests the need for routine genetic testing and counseling prior to employment of assisted reproduction techniques.

Keywords: Azoospermia factor, Infertility, Y chromosome microdeletion, Chromosomal abnormality

P11: Evaluation of reproductive history and lifestyle factors on ovarian functional cyst on reproductive age

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Background: Functional ovarian cysts are common in reproductive age females. According to high prevalence of functional ovarian cysts and costs for community-based diagnosis and treatment, this study aimed to evaluate the relationship between fertility history and lifestyle factors with functional ovarian cysts.

Methods: This cross-sectional study was done on 280 women of reproductive age. Inclusion criteria were Iranians aged 13-49 years and exclusion criteria were pregnancy, history of infertility, menopausal women and women with acute gynecologic, hormonal and neoplastic situations. Collecting information was done with the questionnaire included demographic information and medical and fertility history. Data analysis was performed using statistical software SPSS (version 16).

Result: The results showed that cigarette and alcohol consumption (p=0.02) and body mass index (p

Conclusion: The results of this study showed the relationship between life style with ovarian cysts. According to this result, education and lifestyle modification of these patients were need to prevent functional ovarian cysts formation.

Keywords: Obesity, parity, Smoking, Ovarian cysts

P12: Effect of trichostatin A on MHC, histone deacetilaze and DNA methylteransferase gene expression in somatic cell nucleus transfer stem cells

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Background: Embryonic stem cells (ESCs) can differentiate into whole cell of the body, for this reason ESCs can be used for therapeutic goals in regenerative medicine. Somatic cell nuclear transfer (SCNT) is an alternative approach for produce ESCs without fertilization. Trichostatin A (TSA) is a HDACi that increases the histones acetylation and thus enhances expression transcriptionally silent allele of imprinted genes. TSA might promote the reprogramming process and improve cloned embryo development. The aim of this study was determination of the effect of Trichostatin A on MHC, histone deacetilaze and DNA methylteransferase gene expression in somatic cell nucleus transfer stem cells.

Methods: In this experimental study, mature oocytes were recovered from BDF1 [C57BL/6×DBA/2) F 1 mice] mice and enucleated by micromanipulator. Cumulus cells were injected into enucleated oocytes as donor. Reconstructed embryos were activated in the presence or absence of TSA and cultured for 5 days. Blastocysts were transferred on inactive mouse embryonic fibroblasts (MEF), so ESCs lines were established. We selected 15 genes which consisted of MHC- (Qa-1, Qa-2, CIITA, H2db, H2dd , H2KB, H2KD, H2-IE-bb, H2-IE-bd), DNA DNA methylation - (Dnmt-1, Dnmt3a, Dnmt3b), Histone deacetylase- (Hdac1, Hdac2, Hdac3), genes in embryonic stem cell derived from blastocyst with in vitro treated with and without TSA blastocysts (group 1 and 2)and in vivo blastocysts (control group). For Measurement of gene expression real-time PCR (RT-PCR) was used. All statistical analysis was performed using SPSS 11.5 software with $p < 0.05$ indicating significance.

Result: The blastocyst formation rate of the SCNT embryos treated with 100 nM TSA was higher than that of untreated embryos and control group. Stem cells in group 1 displayed up-regulated expressions of genes including Qa-2and H2-IE-Bd (P

Conclusion: TSA has positive effect on growth and development of SCNT embryos but TSA leads to abnormal changes in MHC, Dnmt, HDAC gene expression in ESCs cell lines.

Keywords: Epigenetics modification, Trichostatin A, Somatic cell nuclear transfer

P13: Histone modification of embryonic stem cells produced by somatic cell nuclear transfer and fertilized blastocysts

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Background: Nuclear transfer-embryonic stem cells (NT-ESCs) are genetically identical to the donor's cells, provide a renewable source of tissue for replacement, and therefore, decrease the risk of immune rejection. Trichostatin A (TSA) as a histone deacetylase inhibitor (HDACi) plays an important role in the reorganization of the genome and epigenetic changes. In this study, we examined whether TSA treatment after somatic cell nuclear transfer (SCNT) can improve the developmental rate of embryos and establishment rate of NT-ESCs line, as well as whether TSA treatment can improve histone modification in NT-ESCs lines.

Methods: In this experimental study, mature oocytes were recovered from BDF1 [C57BL/6×DBA/2) F 1 mice] mice and enucleated by micromanipulator. Cumulus cells were injected into enucleated oocytes as donor. Reconstructed embryos were activated in the presence or absence of TSA and cultured for 5 days. Blastocysts were transferred on inactive mouse embryonic fibroblasts (MEF), so ESCs lines were established. ESCs markers were evaluated by reverse transcription-polymerase chain reaction (RT-PCR). Histone modifications were analyzed by enzyme linked immunosorbent assay (ELISA).

Result: Result of this study showed that TSA treatment after SCNT can improve developmental rate of embryos (21.12 ± 3.56 vs. 8.08 ± 7.92), as well as establishment rate of NT-ESCs line (25 vs. 12.5). We established 6 NT-ESCs in two experimental groups, and three embryonic stem cells (ESCs) lines as control group. TSA treatment has no effect on H3K4 acetylation and H3K9 trimethylation in ESCs.

Conclusion: TSA plays a key role in the developmental rate of embryos, establishment rate of ESC lines after SCNT, and regulation of histone modification in NT-ESCs, in a manner similar to that of ESCs established from normal blastocysts.

Keywords: Epigenetics Modification, Trichostatin A, Somatic cell nuclear transfer

P14: Ovarian slow freezing tissue versus vitrification can better tolerate transplantation

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Background: The survival rates of cancer patients are increased, but unfortunately many of aggressive treatment regiments are associated with the risk of premature ovarian failure. Then now a day human`s preoccupation is quality of life of cancer survivors and how to preserve patient`s fertility.

Methods: Ovarian tissue from adult mixed breed sheep was frozen using vitrification or slow freezing then fresh and warmed tissue were cultured onto chick embryo chorio-allantoic membrane. After five days culture, morphology evaluation of follicles and stroma were done and proliferative activity in three groups was compared.

Result: After culturing, follicular structure had been preserved better in both fresh and slow freezing rather than vitrification group and fibrosis has increased in culture rather than uncultured tissue but there wasn't significant differences between groups. The amount of necrosis areas increased after culture in all groups but the difference between groups was significantly higher in the vitrification culture group. Although result of proliferating assay was lower in the culture groups than uncultured group but there weren't significant differences between cultured groups.

Conclusion: Therefore, at this situation that follicles will be better survived after slow freezing and it transplanted earlier than vitrification so it will be preferable than vitrification and it is early saying that vitrification is a viable alternative to slow freezing

cryopreservation. Although it is cost and time saving but the aim of freezing is more important than the way of freezing.

Keywords: Chorio-allantoic membrane, Slow freezing, Vitrification, Ovarian tissue

P15: Jurisprudential and legal principles of producing germ cells by stem cells, regarding Khomeini's legal views

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Background: One of the most important scientific advances in the second half of the twentieth century was the discovery of stem cells and their therapeutic and research usages. The stem cells are undifferentiated cells that can be changed into the most body tissues. Among the most important discoveries is the production of germ cells from pluripotent stem cells that are able to be divided into many different cells or be derived from germ stem cells. This method is going to be more and more advanced and hence some new issues are appearing along the time. Ethical and legal issues in this area have been increased since 1998, when researchers were able to isolate human embryonic stem cells. Since in Iran the legal codes and rules have not still written and dictated for applying such cells in therapeutic and research laboratories, it is necessary to revisit the jurisprudential resources, with the objective of proposing jurisprudential, legal, and moral challenges, based on the fourth article of the Iranian Constitution, in order to write the legal rules.

Methods: The present paper, considering the interdisciplinary studies in both biological sciences and Imami (Shiite) dynamic jurisprudence (fiqh) and regarding juristic arguments and principles of law, returning new secondary principles to the first ones and adapting the general at certain cases, aimed to study the new legal findings on this issue, with special attention to Imam Khomeini's juristic method (ijtihad), i.e. ijtihad on place and time.

Result: This technology in different societies faced with a wide variety of ethical and legal implications, because its clinical potential risks are obstacles for such applying studies, but its usages and benefits shall not be forgotten. Therefore, to support the researchers and human trials, the following prerequisites are suggested: 1- Before the clinical trials, its safety and efficiency must be clearly fixed. 2- Medical researches must be done only with awareness, voluntary, satisfaction, and ability of human case studies. 3- To support researchers as well as human trials, compensation (remedy) and insurance by pro-government research projects must be considered.

Conclusion: This technology in different societies faced with a wide variety of ethical and legal implications, because its clinical potential risks are obstacles for such applying studies, but its usages and benefits shall not be forgotten. Therefore, to support the researchers and human trials, the following prerequisites are suggested: 1- Before the clinical trials, its safety and efficiency must be clearly fixed. 2- Medical researches must be done only with awareness, voluntary, satisfaction, and ability of human case studies. 3- To support researchers as well as human trials, compensation (remedy) and insurance by pro-government research projects must be considered.

Keywords: Imam Khomeini's Views, Legal and juristic principles, Remedy, Stem cells, Producing germ cells

P16: Study of the relation between chlamydia trachomatis infection and beta-defensin 126 (DEFB126) gene deletion in infertile men refered to Royan Institute

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Background: Chlamydia Trachomatis (CT), an obligate intracellular bacteria, requires living cells to replicate itself. Half of men infected with CT are asymptomatic. CT infection can remain up to four years in the couple and affect their fertility. The relationship between CT and infertility is very important because most patients are asymptomatic and untreated. Most common symptoms of infection in men include urethritis, epididymitis, urinary tract inflammations and reduced sperm quality. One of the most important components of the Sperm Glycocalyx surface coating in human is DEFB126 protein. This polypeptide covers surface of sperm cells during passing through epididymis and has important role in immune system. Human β-defensin 126 (12kDa) is a small cationic glycoprotein that is highly rich of cysteine. DEFB126 gene is located on the subtelomeric end of 20p13 in human. It is considered as an important component of the human sperm glycocalix and provides protection for sperms from infection-causing microbes and against the female immune system.

Methods: According to the role of DEFB126 against infection, the aim of this study was to investigate the frequency of deletion of two nucleotides in gene DEFB126 and its relation with the prevalence of Chlamydia trachomatis (CT) in semen samples of Iranian infertile patients, referred to Royan Institute. In this study, among1080 patients with poor sperm parameters, were selected for primary screening and detecting, 155(14.3%) patients were diagnosed with ELISA test .The Sperm's DNA was extracted in order to confirm the presence of Chlamydia. Chlamydia genome amplification was performed using specific primers. Among these samples with CT, 50 patients of whom symptomatic and 50 patients were asymptomatic, were considered on cytosine dinucleotide deletion with Standard PCR ،Sequencing and 70 fertile men with normal sperm quality and without any past history of CT infection were selected as controls.

Result: The results showed that among three types of genotypes seen in these cases, wt/wt, heterozygous wt/del and homozygous mutation del/del, males who had CT infection showed significantly higher frequency of homozygous mutations del/del in DEFB126.

Conclusion: The results of this study demonstrated that, because of gene mutation in DEFB126 in Iranian infertile men with CT infection,the immunogenicity role of DEFB126 can be impaired. Accordingly, patients with this mutation are more susceptible and prone to develop infections such as Chlamydia Trachomatis.

Keywords: Glycocalyx, β-defensin 126 , Chlamydia trachomatis, Male infertility

P17: Bacteriospermia can affects semen parameters and sperm DNA fragmentation in normozoospermic males

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Background: Several factors can alter semen quality and bacteriospermia could be one of them. Bacteriospermia can increase WBC and Ros level in semen samples and therefore cause sperm DNA damage. Sperm DNA damage is one of the male infertility indicators. The purpose of this study was the evaluation of any possible relation between the bacteriospermia and leukocytospermia with sperm DNA fragmentation.

Methods: Ejaculated semen samples were collected from 40 men referred to Royan Institute. Samples were divided to two groups (leukocytospermia vs non-leukocytospermia). Semen analysis was performed according to the World Health Organization (WHO) 2010 guidelines using CASA. The semen samples were cultured for a bacterial growth using standard bacteriological techniques. Sperm DNA fragmentation was examined by Sperm DNA Fragmentation Assay (SDFA) kit. Data analysis was carried out using IBM SPSS Statistics.

Result: In this study, prevalence of 10 species bacteria was observed. The most common bacteria was Streptococcus viridians (42.1%) and the less frequently isolated organisms were Streptococcus agalactiae (2.6%) and E.coli (2.6%). Sperm motility and morphology were significantly lower in leukocytospermia group. Sperm DNA fragmentation was significantly higher in leukocytospermia group (p

Conclusion: Genital tract infections that are usually associated with leukocytospermia can negatively affect sperm parameters and increased levels of DNA fragmentation.

Keywords: DNA Fragmentation, Semen culture, Sperm, Leukocytospermia

P18: Comprehensive sexual health education curriculum

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1-

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Background: The concept of sexual health has evolved since initial articulation by the World Health Organization(W.H.O) in 1975.Family life and sexual health(FLASH) is a widely used comprehensive sexual health education curriculum developed by public-health-settle and king county and designed to prevent teens pregnancies, STDs and sexual violence .Also ,it goes back to family communication and their level of knowledge of sexual and reproductive health.

Methods: This was a review study collected from new articles.

Result: The Flash curriculum is based on the theory of planned behavior .It is designed to support young people in making healthy choices ,abstaining from sex ,using prevention when they do have sex, seeking health care when they need it, and communicating effectively with their families.

Conclusion: The confluence model of sexual aggression has long been used to explain sexual violence ,but has only recently begun to be applied in the realm of prevention. Flash is available for elementary , middle , high school and special education class rooms and universities students. It is designed to be used in schools as part of health unit .Flash training focus on building teacher's skill and aren't simply an overview of the lessons. Teachers training builds skills in answering difficult student questions.

Keywords: Curriculum, Education, Sexual health

P19: Effect of royal jelly on the relative expression of GDF-9 BMP-15 genes on in vitro maturation of sheep oocytes

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Background: This study was conducted o investigate the different percentages of royal jelly on in vitro maturation of sheep oocyte.

Methods: Sheep ovaries were collected from local slaughter house and transferred to the laboratory via term-flask containing warm saline (35˚C) with 100 IU/ml of penicillin. COCs were recovered from antralfollicles (2-6 mm) by slicing method and cultured in to the medium 199 containing 10% FBS, 0.01 U/ml o FSH, 0.2 mM pyruvate and 0.2 mM glutamine and in a different percentages of royal jelly (0 , 0.25 , 0.5 and 1%). COCs cultured in maturation medium reached to MII after 24 hours. Data were analyzed as a compeletly randomized design with 4 treatments and 4 replicate in each.

Result: The results of this study demonstrated that the addition of royal jelly to medium increased the rate of oocyte maturation (p

Conclusion: The results indicated that the increase in percentages of different royal jelly increased significantly in vitro maturation oocyte rate from the control (61%) than the one percent(89%) in (p

Keywords: BMP15 , GDF9 , Oocyte cumulus complex , Sheep, Royal jelly

P20: Teratogenic plants in pregnancy

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Background: Plants have been considered among the medical resources from long time ago and due to their numerous properties in traditional medicine and wide consumption among communities but these plants have some side effects, one of these is on pregnancy. Pregnant women use these drugs without knowledge of the effects, which causes abnormalities. Birth defects and congenital malformalities are similar terms that are used in order to describe structural, behavioral and functional abnormalities. Many secondary plant metabolites have been known that have toxic effects on the fetus and cause damages such as birth defects, removing the caudal vertebrae and spina bifida, etc.

Methods: This research is a review done by using prestigious academic sites in Persian summarizing numerous experimental papers.

Result: In this study, we researched about effects of about twenty plants that make birth defects and cause difficult labor such saffron, olender, armak.

Conclusion: According to studies on medicinal teratogenic plants in pregnancy, the research shows medicinal plants by mechanisms such as anti-proliferation and flavonoids compounds and alpha ayopantosis etc. cause abnormalities in the fetus.

Keywords: Medicinal plants, Teratogenic, Traditional medicine , Pregnancy

P21: Comparison between different High Bisphenol-S dosage detrimental effects on IVF outcome in female mice

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Background: Endocrine disrupting chemicals (EDCs) is a substance that alters function(s) of theendocrine system and consequently causes adverse health effects in an intact organism, or its progeny, or (sub) populations" (WHO/ IPCS, 2002). Bisphenol-A (BPA) is one of the main EDCs which is found in pharmaceutical agents, pesticides and Plastics. Because of endocrine and oxidative stress effect, now a day, companies use BPA substitute in their product. Bisphenol-S, a dominant BPA replacement especially in cans and bottle, use in BPA-Free product in European countries. However, new investigation revealed 80 and 200 mM of BPS induce protein damage in human peripheral mononuclear cells. In our study, BPS high and normal dosage toxic effect was investigated on oocyte fertilization and blastocyst rate.

Methods: In this study, 50 mature healthy female mice were housed for one week before investigation. All mice were divided to five groups randomly. Mice were administrated normal saline in control group. Sham group was administrated ethanol (concentration of the ethanol in the media was 0.1%). Three dosages of BPS were administrated 10 µg/kg, 50 µg/kg and 100 µg/kg in different groups. Sub cutaneous (SC) injection was used in 21day for decrease liver first past effect.

Result: In all BPS administrated groups, long term BPS absorption induced reduction in oocyte fertility rate and blastocyst formation. Statistical analyses showed significant difference between control, sham and BPS absorbed groups. All high dosages of BPS (esp. 50 µg/kg & 100 µg/kg) have dominant destructive effect on oocyte fertilization and blastocyst formation rate.

Conclusion: According to previous studies, BPS as a substitute play good role in plastic industry because of lesser EDCs effect than BPA. But there is a concern about High dose absorption of Bisphenol family. Our study elucidated that High dose consumption of BPS have destructive effect on In Vitro Fertilization (IVF). This is a new concept in infertility treatment because too many plastic devises were used in IVF procedure concerning increase in plastics compound consume in daily life.

Keywords: Bisphenol-S , IVF, Mice

P22: Long term evaluation of BPS low dose toxicity on in vitro fertilization in female mice

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Background: Endocrine disrupting chemicals (EDCs) are the main pollutants in the world that influence human health and reproduction. Bisphenol-A (BPA) is one of the main EDCs found in plastic and cans. Because of endocrine and oxidative stress effect, now a day, companies use BPA substitute in their product. Bisphenol-S, a dominant BPA replacement especially in cans and bottle, is used in BPA-Free product in European countries. However, new investigation revealed dose dependent toxic effect of BPS in many tissue. In our study, BPS low dose toxic effect was investigated on oocyte fertilization and blastocyst rate.

Methods: In this study, 40 mature healthy female mice were housed for one week before investigation. All mice were divided to four groups randomly and each group contained ten mice. Mice was administrated normal saline in Control group. Sham group was administrated ethanol (concentration of the ethanol in the media was 0.1%). Three dosages of BPS were administrated 1 µg/kg and 5 µg/kg in different groups. Sub cutaneous (SC) injection was used 21 days for reducing liver first past effect.

Result: In all BPS administrated groups, long term BPS absorption induces reduction in oocyte fertility rate and blastocyst formation. Nevertheless, statistical analyses didn't show significant difference between control, sham and BPS absorbed groups. In comparison between BPS administrated groups, 5mg/kg BPS has more destructive effect on oocyte fertilization and blastocyst formation rate, however, the difference between all groups wasn't meaningful.

Conclusion: According to previous studies, BPS as a substitute plays good role in plastic industry because of lesser EDCs effect than BPA. But there is a concern about long term and low dose absorption of Bisphenol family. Our study elucidated low dose consumption of BPS didn't have prominent effect on In Vitro Fertilization (IVF).

Keywords: Female mice, In vitro fertilization, BPS

P23: Preventive effect of pioglitazone on reproductive damage by suppression of testicular nitric oxide (NO) level in streptozotocin-induced diabetic rats

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Background: It has been shown that diabetes mellitus has adverse effects on the male sexual and reproductive functions. Enhanced oxidative stress and changes in antioxidant capacity have important roles in the pathogenesis of chronic diabetes mellitus. Previous studies have demonstrated that pioglitazone is a potent inhibitor of inflammatory and potent antioxidants. The purpose of this study was to investigate the preventive effects of pioglitazone on nitric oxide (NO) levels of testicular tissues.

Methods: Induction of experimental diabetes was done using single intraperitoneal injection of Streptozotocin (STZ) (Sigma, Germany) dissolved in citrate buffer (pH 4.5) at the dose of 65 mg/kg to overnight fasted rats. Only rats with blood glucose concentrations above 250 mg/dL were considered as diabetic. Animals were randomly divided into four groups of eight rats: control group, STZ-induced diabetic group (diabetic group) and STZ-induced diabetic groups treated with low or high doses of pioglitazone (Sigma, Germany) of 1 or 10(mg/kg/day, orally) for 5 weeks. Animals were euthanized on day 35 and one testis was homogenized in ice-cold Tris-HCL buffer (150 mM, pH 7.4). Testicular nitric oxide (NO) level was measured as total nitrite/nitrate, the stable degradation products of NO, by reduction of nitrate into nitrite using copperized cadmium, followed by color development with Griess reagent in acidic medium.

Result: STZ caused marked increase (P < 0.05) in testicular NO levels compared with control group of rats. Administration of pioglitazone to diabetic rats, in low and high dosage, ameliorated abnormalities in testicular NO levels when compared with those in diabetic control group (p< 0.05).

Conclusion: In conclusion, these findings indicate that pioglitazone may have a therapeutic effect against the autoimmune destruction of the testicular damage during the development of streptozotocin induced type 1 diabetes in rats.

Keywords: Nitric oxide, Pioglitazone, Type 1 diabetes

P24: Antioxidant effects of Hydro-Alcoholic ginger on mice semen following treated with formaldehyde

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Background: Formaldehyde (FA), the recently classified carcinogen and ubiquitous environmental contaminant, has long been suspected of causing adverse reproductive and developmental effects. Potential mechanisms underlying formaldehyde-induced reproductive and developmental toxicities, including chromosome and DNA damage (genotoxicity), oxidative stress, altered level and/or function of enzymes, hormones and proteins, apoptosis, were identified. Ginger rhizome (family: Zingiberaceae) is used medicinally and as a culinary spice. The medicinal use of ginger dates back to ancient China and India. Ginger and its constituents are stated to have antiemetic, antithrombotic, anti-inflammatory, stimulant, cholagogue and antioxidant. Enhanced oxidative stress and changes in antioxidant capacity are considered to play an important role in the pathogenesis of chronic diabetes mellitus. The present study was conducted to assess whether ginger Hydro-Alcoholic extracts with antioxidant properties could serve as protective agents against testicular toxicity during formaldehyde treatment in a mice model.

Methods: Fourty-eight adult male mice were randomly divided into control group (n=8); sham group(10 mg/kg distilled water) (n=8); FA-treated group (10 mg/kg twice per day, I.P) (n=8); Group 4: ginger (G) group (0/5 gr/Kg/day, oral) + 10 mg/kg FA (n=8); Group 5: ginger (G) group (1 gr/Kg/day, oral) + 10 mg/kg FA (n=8) and Group 6: ginger (G) group (2 gr/Kg/day, oral) + 10 mg/kg FA (n=8). Formaldehyde and ginger in treatment groups 4 to 6 were used simultaneously. Animals were kept in standard condition. Mice on experimental and control groups were killed under anesthetic conditions after 35 days. Sperm count, motility, morphology, viability and DNA integrity (AO), were studied, and total antioxidant capacity (TAC) levels and testosterone were measured.

Result: The FA-treated group showed significant decreases (P

Conclusion: Notably, ginger Hydro-Alcoholic extracts coadministration caused a considerable recovery in above-mentioned parameters.

Keywords: Formaldehyde, Mice, Semen, Hydro-Alcoholic ginger

P25: Sexual health education for people with disabilities

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Background: Disability can be defined as a physical mental impairment. Sexual health is a state of physical ,emotional and social well-being in relation to sexuality. It is not merely the absence of disease, dysfunction or infirmity. Sexual health requires a positive and respectful approach to sexuality and sexual relationships ,as well as the possibility of having pleasurable and safe sexual experience free of coercion, discrimination and violence.

Methods: This is a review study, collected from articles.

Result: As a result ,many young people with disabilities (such as :Down syndrome,Cerebral palsy,

paraplegia a, develop mental ,emotional health disorders) receive little or no formal sexual health education ,either in school or at home. In a study in U.S.A, about 2.8 million youth under the age of 15 had some kind of physical ,intellectual or emotional disability such as deaf or hard of hearing, cerebral palsy, blinding , spinal cord injuries . So all parents ,guardians should be the primary sexuality educators for their children. However, sexual health is impacted by socio-economic and cultural contexts, including policies, practices and services that support health outcomes for individuals.

Conclusion: Sexuality is a normal part of growth and development.Young people with disabilities need accurate information and skills, and have the same rights as those without disabilities.

Keywords: Education, Young people, Disabilities, Sexual health

P26: The use of serum ca-125 and its prognostic value for prediction of ovarian endometrioma (OMA)and Deep Infiltrative Endometriosis (DIE)

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Background: The purpose of this study was to estimate the prognostic value of serum ca-125 level for prediction of ovarian endometrioma (OMA) and deep infiltrative endometriosis (DIE) and their severity .

Methods: 230 patients who had undergone laparoscopic surgery and diagnosis of endometriosis and DIE were confirmed by pathology. This study was performed in Avicenna Endometriosis Clinic between years 2012-2014. CA-125 serum levels were measured preoperatively by electrochemi-luminescence . Normal cut off value of ca125 was 35 unit/ml. Patients were categorized by endometriosis involvement (+,-) also type of the disease (OMA and DIE) .r-ASRM endometriois score and its component was considered as severity of each type of lesions.

Result: From 173 patients diagnosed with endometriosis , 106 patients (61.2 %) had DIE and OMA, 35 patients (20.2 %) had OMA, and 32 patients (18.4%) were involved by DIE . 57 patients were categorized in non-endometriosis groups (control).The $\chi 2$ test showed significant relationship between OMA and ca125 (OR=8.48 ,P-values

Conclusion: This study enhances the prognostic value of ca-125 . it seems OMA is predicted better than DIE by ca125, but high levels of serum ca-125 have equal value for prediction of severity of OMA and DIE.

Keywords: Deep infiltrating endometriosis, Endometrioma, Endometriosis, Ca-125

P27: The effect of elevated levels of serum anti mullerian hormone on the quality of the embryo in infertile women undergoing assisted reproductive technology

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Background: Anti-Mullerian Hormone (AMH) is produced by the granulosa cells of preantral and antral

small follicles. AMH is the most significant predictor of embryo quality and a known biomarker of ovarian function. AMH level can be considered as an important factor to evaluate women's infertility at reproductive age. The purpose of this study was to investigate the correlation between increased AMH concentration and the quality of embryo in infertile women at reproductive age.

Methods: In this study, the AMH levels were analyzed in 85 34-to-39-year-old women where 45 of them were within a normal AMH level and 40 of them had an elevated level. Data collected from this study was analyzed through the independent sample T test method. The mean was significantly different from the P value with an accuracy of less than 0.05.

Result: The comparison between women with normal and elevated AMH indicates that those with elevated AMH have a significant increase on percentage of C grade embryo and it doesn't show significant differences in the other parameters of embryo quality.

Conclusion: The previous studies have indicated that levels of serum AMH are effective on the quality of embryos. Therefore, abnormal levels of AMH might be effective on the quality of embryo. This study suggests that the level of AMH hormone in women can be an effective tool for assessment oocyte and embryo quality.

Keywords: Assisted reproductive technology, Biomarker , Infertility, Pregnancy , Quality of embryo, Anti mullerian hormone

P28: The effect of elevated levels of serum prolactin on the quality of the embryo in infertile women undergoing assisted reproductive technology

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Background: Prolactin is a hormone produced in the pituitary gland. High levels of prolactin (hyperprolactinemia) reduces gonadotropin hormones and inhibits ovulation. Prolactin levels can be considered as an important factor which increases women's infertility at their reproductive age. The purpose of this study was to investigate the correlation between the concentration of elevated prolactin and the quality of embryo in infertile women at reproductive age.

Methods: In this study, the prolactine levels were analyzed in 80 34-to-39-year-old women where 43 of them were within a normal prolactine level and 37 of them had an elevated level. The quality of generated embryos was investigated through assisted reproductive method within A, B and C classes. The data collected from this study was analyzed through the independent sample T test method. The mean was significantly different from the P value with an accuracy of less than 0.05.

Result: The comparison between women with normal and elevated serum prolactin levels indicates that those with elevated prolactin have a significant decrease on the percentage of A grade embryos.

Conclusion: Based on previous studies, there is a relationship between the concentration of serum prolactin and hypothalamic-pituitary axis. As a result, any change in prolactin level by affecting this hypothalamic-pituitary axis function might affect the quality of generated embryos and oocytes. This study suggests that the prolactin hormone level in women can be an effective tool to assess oocyte and embryo quality.

Keywords: Assisted reproductive technology, Hypothalamic-pituitary axis, Infertility, Pregnancy , Quality of embryo, Prolactin

P29: A moral appraisal of single parenthood by choice

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Background: ARTs have provided individuals with the new option of parenthood outside the realm of marriage. This option may give rise to certain moral problems. The problems could be encapsulated under the following titles: “entitlement to reproduction”, “future and welfare of the resulting child”, “non-discrimination against single people”, and “professional autonomy”.

Methods: This research was undertaken by an analytic method, and the sources were mainly gathered from libraries and electronic data bases.

Result: It seems that the welfare and future of the resulting child is of more significance in the study. In this regard, we may refer to the following issues as the more challenging ones: the necessary role of both masculine and feminine elements in the formation of the child’s character and identity, feeling of poverty due to the lack of one of the mother or father in comparison with other children of the same age, and the child’s entitlement to know her biological parents. These issues are significant, although we should wait until deep and exact psychological and sociological studies are run on children raised under the single parent by choice. Results of such studies will no doubt leave impact on the moral issues as mentioned. It should be seen whether or not the single parents by choice have reproduced and raised the children by love. The result of such investigation will undoubtedly influence the mentioned challenging issues.

Conclusion: All in all, although due to the lack of reliable empirical studies on the destiny of such children, we cannot morally criticize the phenomenon of the single parent by choice in an absolute way, one may strongly recommend adoption, as opposed to reproduction, in this regard.

Keywords: ARTs, Child welfare and future, Gamete donation, Moral evaluation, Single parenthood by choice

P30: The role of mitochondria in women infertility

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Background: Egg health plays a key role in fertility, and mitochondria, as the energy producing factories inside egg cells, are important factors in contributing to healthy eggs. These organelles generate most of the energy of the cell in the form of adenosine triphosphate (ATP) and it is used as a source of chemical energy. Mitochondria affect all aspects of mammalian reproduction. They are key factors for optimal oocyte maturation, egg fertilization and embryonic development. Mitochondrial dysfunction declines egg quality and influences embryonic development. As a result of an age-related decrease in oocyte quality and quantity, female reproductive capacity decreases greatly in the fourth decade of life. Here, we showed that aging of the female germ line is accompanied by mitochondrial dysfunction associated with decreased oxidative phosphorylation and reduced Adenosine tri-phosphate (ATP) level.

Methods: The method was through the review of current literature on the subject.

Result: We presented the current evidence that there is a close relation between dysfunction of the mitochondria and the decrease of women fertility capacities.

Conclusion: Although the factors responsible for decreasing female reproductive capacity remain to be elucidated, the present review focused on the important role of mitochondria in reproduction. Optimal mitochondrial function is required for the oocyte maturation, fertilization and embryonic development. Increased knowledge about the mitochondrial function either through procedures involving mitochondrial transfers and mitochondrial replacement could lead to better fertility outcomes. We are entering a new era wherein studying mitochondrial performance with modern procedures could improve reproductive performance in humans.

Keywords: Mitochondria, Oocyte, Reproduction, Fertility

P31: Association of sexual function and psychological symptoms (depression, anxiety and stress) with women's recurrent vulvovaginal candidiasis

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Background: Recurrent vulvovaginal candidiasis is one of the common vaginal infections in women which could affect their quality of life, romantic relationships, and sexual performance.

Methods: In the case control study, fifty women with recurrent vulvovaginal candidiasis and 50 healthy women referred to clinics of Shiraz University of Medical Sciences were selected using convenience purposive sampling. Two samples of vaginal discharge were prepared from each person. A sample was produced under a microscope for direct observation of the organism with 10% potassium hydroxide secretions and another sample was cultured on Sabouraud Agar.Data collection tools included demographic questionnaire, Female Sexual Function Index, Depression Anxiety Stress Scales (Dass-21) were used.Data were analyzed using SPSS software (version 19).

Result: Less sexual satisfaction (OR = 0.608, CI = 0.421_0.878) and less orgasm (OR = 0.741, CI = 0.530_0.998) have been associated with an increased risk of recurrent vaginal candidiasis. In patients with recurrent vulvovaginal candidiasis, the levels of depression, anxiety and stress were significantly higher compared to those of healthy individuals. Depression, anxiety and stress in the past 4 weeks are related to an increased risk of recurrent vaginal candidiasis.

Conclusion: There is an association between depression, anxiety and stress; sexual satisfaction; and orgasm with recurrent vaginal candidiasis. It seems that psychological interventions and sexual counseling can be effective in improving recurrent vaginal candidiasis.

Keywords: Anxiety, Depression, Stress, Vulvovaginal candidiasis, Sexual dysfunction

P32: Time-to-Ejaculation and the quality of semen in fertile and infertile men

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Background: The average time it takes for ejaculation to occur upon stimulation varies between individuals, with no strict figure given for what is normal. In the present study, we have investigated the association between the length of time-to-ejaculation and semen parameters which was produced by masturbation. Ejaculated semen of fertile and infertile men submitted for ICSI program at Avicenna Infertility Clinic (AIC) were included in this study.

Methods: Three groups in each category (fertile and infertile) were defined according to time to ejaculation: G115 min. Each specimen was produced after 3-4 days of ejaculatory abstinence. Two different experiments were conducted: In 55 fertile men (group 1) attending for family balancing through ICSI/Sex selection program and in group 2, 49 infertile men submitted for ICSI/ET program. Measures included the time taken to produce ejaculate, sperm count, morphology and motility, SDF (sperm DNA fragmentation) and SCI (sperm chromatin immaturity). Additionally, the fertilization rate and embryo quality were analyzed within three different times in each group.

Result: No significant correlations existed among the time-to-ejaculation, men age and sexual abstinence. The present study demonstrated that increased time-to-ejaculation during masturbation at IVF clinic was not associated with remarkably poorer semen parameters in terms of sperm count, progressive motility and morphology between samples in group 1 and 2 in three defined time to ejaculation. Also functional parameter of semen including SDF and SCI showed no significant difference in two groups.

Conclusion: Moreover, there was not any major difference in the fertilization rate and embryo quality in two groups regarding three different time to ejaculation.

Keywords: Fertilization rate, Sperm chromatin maturity, Sperm DNA fragmentation, Time-to-ejaculation

P33: Pharmacogenetics of metformin response in Iranian patients with polycystic ovary syndrome (PCOS) in Peroxisome Proliferator activated receptor gamma (PPAR y) gene

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Background: Polycystic ovary syndrome (PCOS) is now characterized as an important metabolic, reproductive disturbance and ovulatory dysfunction insulin resistance.In the peroxisome in proliferator-activated receptor gamma (PPAR y) gene, a polymorphism Pro 12 Ala , has been shown to change amino acid residue of proline with alanine and affect PPAR y function. PPAR y is a transcription factor and is an important regulator of adipogenesis that Pro12Ala polymorphism alleviates its transcriptional activity. Metformin improves insulin ovulation in PCOS patients. The aim of this study was to investigate the relationship between Pro12Ala polymorphism and metformin consumption in patients with PCOS.

Methods: A total of 100 reproductive-aged women included in this case study were diagnosed as a PCOS based on Rotterdam criteria and 100 healthy women with no evidence of PCOS were recruited as controls. The plasma levels of follicle-stimulating hormone (FSH), and luteinizing hormone (LH) was evaluated before and 45 days after metformin consumption in patients. The case and control group was genotyped using the technique PCR-RFLP for Pro12Ala polymorphism.

Result: After genotyping, there was not any significant difference in patient and control groups. In patient, LH, FSH, and testosterone levels was significantly different but there was no correlation between genotype and response to metformin (p-value=0.59).

Conclusion: The study was done to obtain ovulatory response to treatment of metformin in a prospective randomized trial. The interaction with the effects of changes in genetic or modifiable factors requires further study.

Keywords: FSH, Genotyping , Metformin, PCR-RFLP, Polymorphism, PPAR y gene, Pro12Ala, LH, PCOS

P34: The effect of herbal medicines in the treatment of infertility in both infertile men and women

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Background: Infertility is one of the most complex issues in medicine and according to the World Health Organization (WHO) statistics, 10 to 15 percent of couples are infertile. Due to the side effects of chemical drugs, in recent decades the use of traditional medicine is seriously considered. Using herbal therapy is important in infertility.

Methods: This article was a review article with search on sites such as PubMed, SID, EMBASE, Scopus, Google scholar and Magiran. Articles coordinated with the specified criteria were collected from 2010 to 2017.

Result: The study showed that plants extract such as carrot seed, alcoholic extract of fumitory, garlic extract, marjoram, ginger and saffron increases testosterone levels, LH and occasionally FSH and increases sperm count, motility and viability of sperm affects fertility. Parsley leaf, having antioxidant compounds, led to the increase of pituitary-gonadal axis hormones. Hops plant in women caused a significant increase in estrogen and progesterone and increase in the number of mature follicles and in men caused increase testosterone levels and spermatogonia and spermatocytes cells number. Hydro-alcoholic extract of black seed, palm pollen aqueous extract and Salep (C. koch) plant cause increase in sexual hormones level and the number of antral and secondary follicles. Chinese date plant reduces androgen levels in polycystic ovarian syndrome (PCOS) and ovarian cysts destroys them.

Conclusion: Using herbal medicines with property of fertility enhance in men and women can be used as an alternative to chemical drugs affecting fertility in infertile couples.

Keywords: Herbal medicines, Traditional medicine, Infertility

P35: The potential of innovative and novel therapeutic approaches through manipulation of non-codingRNAs for differentiation of MSCs to oocytes

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Background: Approximately, 15-25% of couples suffer from infertility problems. In adult human ovaries, with age, the quantity and quality of oocytes is declining, and also delayed process of fertilization occurs. Proliferation and differentiation of germ cell are done by transcriptional regulation of specific genes. So far a few number of non-codingRNAs have been known and their functions of them are not clearly identified. RNAseq is one of high-throughput technologies of next-generation sequencing. By using this technology, we can evaluate whole transcriptome as well as RNAs that involved in stem cells differentiation pathways into oocytes with emphasis on non-coding RNAs.

Methods: After culture and differentiation of mesenchymal stem cells into oocytes, in specific days of differentiation, the levels of the transcripts including ncRNAs were evaluated by using NGS technology. Also Real-Time PCR performed in order to investigate differentiation markers as well as confirmed data from NGS. We used some databases such as NONECODE ، LncRNADisease, GermlncRNA ،DIANA-LncBase, lncRNAdb, NRED, mirBase, mirwalk, mircode, mirdb for further analysis.

Result: The results of Real-Time PCR showed that oocyte-specific markers upregulate during differentiation and downregulation of stemness markers. This study showed the expression changes of some transcripts including non-coding RNAs.

Conclusion: Regarding up-or downregulation of non-coding RNAs during differentiation, we suggest that manipulation of some ncRNAs maybe a novel and innovative strategy for stem cell-based therapies in infertility treatment.

Keywords: Mesenchymal stem cell, Non-codingRNAs, Oocyte, Differentiation

P36: Common rue causes oxidant/antioxidant imbalance in mouse ovarian tissue

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Background: Ruta graveolens L., commonly known as rue or common rue, is traditionally used for contraceptive purposes. This murine model study was designed to explore Ruta graveolens L. aqueous extract (RGE) effects on oxidant/antioxidant status in ovarian tissue.

Methods: Adult female mice were assigned into two equal groups, serving as control group and RGE-exposed group. The RGE was given to the mice at a dose of 300 mg/kg per day orally for 21 days. Twenty-one days after the last treatment, ovarian tissues were quickly harvested in order to assess malondialdehyde (MDA) and total antioxidant capacity (TAC) levels.

Result: The RGE administration led to considerable reduction in TAC level along with an increase in MDA production in the mice ovarian tissue.

Conclusion: Our findings suggested that RGE can cause mouse ovarian failure probably through antioxidant defense mechanisms weakening in this organ.

Keywords: Mice, Ovary, Oxidant/antioxidant balance, Ruta graveolens

P37: Using natural honey as non-permeating cryoprotectant: An approach to reduce apoptose in vitrified-warmed mouse blastocyst

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Background: Vitrification process optimization, as a way to store embryos derived from assisted reproductive techniques, requires dealing with several destructive factors that expose the embryos to extreme conditions and leads to various stresses such as oxidative stress, subsequently apoptosis. The presence of carbohydrates as non-permeating cryoprotectants is an attempt in order to reduce these stresses. Since the combination use of sugars leads to better results, in this project, natural honey which consists of various monosaccharides and disaccharides was applied as an alternative to sucrose in mouse blastocyst vitrification.

Methods: For this purpose, the first part of the experiment was conducted to determine the optimum concentration of honey in vitrification and warming solutions. The second part was designed to compare the effect of honey-based selected solutions and sucrose-based one in terms of survival, hatching and implantation rate, as well as the expression level of Tp53 and Bax genes.

Result: Among different concentrations of honey, optimum concentrations of 1 and 2 M were chosen for vitrification and thawing mediums, respectively. Results of the second part demonstrated that, not only the survival rate can be equal with sucrose when using honey, but it also brings about as good results as the sucrose-based group regarding the hatching rate and more importantly the implantation rate. In addition, the increased expression level of Tp53 and Bax genes in sucrose-based group is modified by using the honey and approaches the non-vitrified control group.

Conclusion: Therefore, we can introduce natural honey, as an appropriate substitute for sucrose to optimization the vitrification process.

Keywords: Apoptose, Mouse blastocyst, Natural Honey, Non-permeating Cryoprotectant, Tp53 and Bax gene expression, Vitrification

P38: The effect of hydro alcoholic extract of Rorippa Nasturtium Aquaticum on morphology of sperm in prostate cancer induced by DMBA

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Background: The prostate glands are the largest attached glands of the male reproductive system which play a key role in sperm fertility. Therefore, the aim of this study was to investigate the effect of hydro alcoholic extract of Rorippa Nasturtium Aquaticum on morphology of sperm in Prostate cancer induced by DMBA.

Methods: In this research, forty-two male adult rats were divided to 6 groups: Normal, DMBA+ Normal saline, DMBA+ finasteride (Positive control),

DMBA+ dose of 25 mg/kg (negative control), DMBA+ dose 75 mg/kg and DMBA+ dose 100 mg/kg of plant extract, respectively. Due to induction of anesthesia and surgery, direct injection of DMBA was performed into the prostate glands in rats. After ten days of the injection, the rats were gavaged for one Month. Finally, testis of rats were removed for sperm analysis.

Result: In this study, morphology of sperm showed significant changes. So that, amount of abnormal morphology showed significant decreasing compared with normal and positive control groups with increasing dose.

Conclusion: The results revealed that taking this plant extract can improve sperm morphology. Therefore, its prescription as a treatment supplement is recommended.

Keywords: DMBA cancer induction, Morphology of sperm, Rats, Rorippa Nasturtium Aquaticum

P39: The effect of letrozole in ovulation for women with polycystic ovary syndrome replacement

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Background: Various medications used in the treatment of infertility showed that ovulation induction drugs had different effects on mother or baby. For stimulating ovulation in women using clomiphene citrate ovulation was limited to the use of drugs such as aromatase inhibitors such as letrozole as an inexpensive, effective and low risk are proposed to induce ovulation.

Methods: This study was reviewed from literature from 2008 to present. A search was preformed for articles in PubMed, Embase, the Cochrane library, Proquest, science direct and Google scholar.

Result: The number and size of mature follicles were similar for both drugs. Pregnancy rate in the letrozole groups than clomiphene groups was 6%. In 86% of patients, all of which mature follicle in letrozole showed ovulation, while the mature follicle was achieved in 72% of the clomiphene groups based on the large number of investigations in the event of pregnancy letrozole group (3/38%) and the clomiphene group (2/21%). The incidence of multiple pregnancy in letrozole groups was 8/1% and the clomiphene group was 19% and the incidence of abortion in letrozole group was 73/24% and in the clomiphene group was 25%.

Conclusion: It seems that letrozole in patients resistant to clomiphene citrate to induce ovulation with ovulation and pregnancy was associated with a significant amount. Due to the lack of twin pregnancy and ovarian hyperstimulation, letrozole can be the first line treatment in patients resistant to clomiphene. Studies showed that letrozole for induction of ovulation in women with polycystic ovary syndrome and infertility due to anovulation suffer, can be considered a substitute for clomiphene citrate.

Keywords: Infertility treatment , Letrozole , Ovulation, Polycystic ovary syndrome , Infertility

P40: The relationships among sexual function, sexual self-esteem, sexual quality of life, and sexual self-efficacy based on body mass index in men

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Background: Couples with optimum physical, mental, and emotional health can enjoy satisfying family relationships. Studies have shown that Body Mass Index (BMI) can influence sexual function, self-efficacy, and behaviors. Considering the importance of sexual health in marital relationships, this study was conducted to compare sexual function, sexual self-esteem, quality of sexual life, and sexual self-efficacy among men with respect to BMI.

Methods: 192 married men aged 18 - 50 years were recruited as a convenience sample during a cross-sectional study in the city of Isfahan . Data was gathered using meter and digital scale and several valid and reliable questionnaires: demographics ,international index of erectile function (IIEF), Sexual Self-Efficacy, Sexual Self-Esteem, and quality of sexual life were used. The data were analyzed using SPSS 23.

Result: The results showed that the differences in average sexual self-efficacy scores among the underweight, normal BMI, and obese individuals were significant (p

Conclusion: Considering the results, social and self schema about desirability and self efficacy for men in different societies should be considered in future studies .Sexual function is a complex state subject comprising biological, mental, and social factors; thus, BMI, alone, cannot be used to explain variability in sexual function. Other factors such as general health, vitality, happiness, and physical attractiveness in interpersonal relationships can also affect how men function sexually.

Keywords: Quality of sexual life, Sexual self-efficacy, Sexual self-esteem, Body mass index

P41: The moral and medical aspects of donating and sharing oocytes

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Background: Applying therapeutic reproductive methods has been developing increasingly in Islamic countries in accordance with Islamic rules. One of these methods is sharing oocytes in which half of a woman`s oocytes is donated to an infertile woman. The present study aimed to examine the moral and medical aspects of donating and sharing oocytes.

Methods: Through searching key words such as oocyte donation, share, and receivers, woman`s infertility, assisted reproductive technology, moral and medical aspects in the international database in searching engines such as Pubmed, SID, and Google Scholar the searching was completed. 50 articles were extracted; 15 articles were omitted and finally data was extracted from 35 articles from 2000 to 2016.

Result: The findings revealed that sharing oocytes has some advantages than sharing oocytes, though it has some shortcomings too. Stimulating to ovulate is through harmonic drugs which have side effects such as cancer or life-threatening cases like ovarian hyper stimulation syndrome. Moreover, the risk of side effects increases during several therapeutic cycles. The most important concern is about the quality of donated oocytes and the likelihood of hereditary disease contagion. It is possible to examine the donator and her children while it is not possible to get information about the woman`s children who shared oocytes because she is infertile too.

Conclusion: It is concluded that oocytes share is moral because the donator herself is infertile and is not under the treatment merely for another person. Considering the risks of infertility drugs, it seems that oocytes share is better that oocytes donation.

Keywords: Assisted reproductive technology, Medical morality, Oocytes receivers, Oocytes share, Woman's infertility, Oocyte donate

P42: The effects of anethum graveolens L. seed extract (AGSE) on histomorphometrical changes of rat uterus and ovaries

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Background: Medicinal plants have been used safely to control fertility. This has led to a search for new antifertility phytochemical forms of natural products. As a medicinal herb, Anethum graveolens L. or dill,a member of the Umbelliferae family, has pharmaco-logical effects such as antibacterial activity antihyperlipidemic and antihyperchole-sterolemic effects and antiproliferative activity. In the present study, histological changes of uterus and ovaries were studied in rats treated with (AGSE) that are use widely as food.

Methods: The animals were adapted to the laboratory for 2 weeks prior to the beginning of the experiments and a vaginal smear was performed daily for selecting rats with a normal estrous cycle. Twenty five female rats were randomly divided into five groups (n=5) and each of 5 animals as follows: Group 1: received normal diet (NC) for 5 weeks ;Group 2: received high-fat diet (HFD) to induce hypercholesterolemia for 5 weeks; Group 3: received HFD + received a low dose of AGSE (300mg/kg body weight/day) for 5 weeks; Group4: received HFD + received a high dose of AGSE(500mg/kg body weight/day) for 5 weeks; Group 5: received a high dose of AGSE (500mg/kg body weight/day) for 5 weeks. At the end of experiment, blood samples were taken from dorsal aorta and estrogen, progesterone, LH and FSH concentrations were measured. Uterus and ovaries were removed and their tissue sections were stained with haematoxylin and eosin. Histomorphometrical changes in uterus and ovary were measured by ocular micrometer.

Result: Duration of diestrus phase under high dose of AGSE increased 2 times compared to the control group. Female rats of the experimental groups did not get pregnant. Progesterone level, uterine epithelium, the total diameter and uterine glands lumen, the number of uterine glands and myometrial thickness increased only in rats treated with AGSE compared to the control group. Therefore, AGSE caused uterine growth. Corpus luteum granulosa cells diameters and their nuclear diameter increased significantly compared to the control group. Granulosa cells elongation represented their higher production of steroid hormones.

Conclusion: AGSE affected reproductive system of female rats.

Keywords: Anethum graveolens L. , Histomorphometry, Ovary, Sexual hormones, Uterus

P43: Protective effect of anethum graveolens L. seed extract (AGSE) on the oxidative stress in ovary of hypercholesterolemia rats

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Background: Hypercholesterolemia is considered to be a major risk factor in the progression of coronary atherosclerosis and is associated with increase in the incidence of cardiac events. Oxidative stress is a state related to increased cellular damage caused by reactive oxygen species(ROS). Using antioxidants such as anethum graveolens L. reduces oxidative stress. In this study, the effect of AGSE on the oxidative stress markers in ovary of hypercholesterolemia rats was investigated.

Methods: In this experimental study, 24 female Wistar rats were randomly divided into four groups: Control, Control received AGSE (500mg/kg/day), high fat diet-induced hypercholesterolemia and hypercholesterolemia with AGSE (500mg/kg/day) for 30 days. At the end, the right ovary was removed for measurement of oxidative stress enzymes including malondialdehyde (MDA) and catalase (CAT). Data was analyzed with spss software by one way ANOVA.

Result: The results showed that the level of MDA enzymes activity was increased in hypercholesterolemia rats but the level of CAT enzymes activity decreased in the ovary. Treatment with the AGSE significantly reduced the level of MDA enzymes activity and increased the level of Catalase (p

Conclusion: The results of this study confirm the antioxidant role of anethum graveolens L. extract in improving the ovarian damage caused by hypercholesterolemia.

Keywords: Hypercholesterolemia, Ovary, Oxidative stress, Anethum graveolens L.

P44: Cloning of human chorionic gonadotropin beta subunit in gene transfer via sperm rooster

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Background: The poultry production technology in animal transgenic has taken into consideration for having many advantages such as short generation times, the large number of production of offspring and suitable pattern of protein glycosylation. HCG hormone is one of the most important hormones that can be produced into recombinant in transgenic poultry. This hormone composed of two subunits, alpha and beta. The beta subunit is responsible for the specific activity of this hormone and it makes it specific. The aim of this study was cloning of the beta subunit of human chorionic gonadotropin. It was in an appropriate vector through sperm that could be used in the production of transgenic poultry.

Methods: For this purpose, the hormone beta subunits were amplified by specific primer pairs, and were cloned into T vector in restriction sites XhoI and HindIII. The recombinant plasmid was transformed into competent E. coli cells and colonies that containing recombinant plasmids were selected by colony PCR. The validity of extracted plasmid of the clones was analyzed by enzyme digestion and sequencing. The beta chain of T vector was isolated and was cloned again into pcDNA3.1 + expression vector.

Result: The results of enzyme analysis and sequencing indicated that recombinant plasmid pCDNA3.1 +/βhCG was cloned with the correct sequence and completely matched up with human chorionic gonadotropin beta sub unit gene.

Conclusion: The cloned gene due to having the correct sequence was used in gene transfering process via rooster sperm.

Keywords: Plasmid, Sequencing, Sperm, Transgenic chickens, Cloning

P45: The impact of testis specific cytochrome oxidase 6b2 (cox6b2) on male fertility

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Background: Asthenozoospermia is a frequent cause of male infertility characterized by reduced sperm motility. The molecular mechanism underlying the sperm motility is not fully understood. Progressive movement requires plenty level of energy which is supplied via two metabolic pathways – glycolysis and oxidative phosphorylation (OXPHOS). The appropriate role of these pathways is not clear in the sperm motility. This study proposed to identify a novel biomarkers by comparison of sperm proteomic and genomic analysis between asthenozoospermic and normospermic control patients.

Methods: We evaluated fourteen infertile patients affected by idiopathic asthenozoospermia and sixteen normospermic fertile donor. In the current study, immunofluorescence staining localized Cytochrome C OxidaseVIb (cox6b2), the testis specific isoform in the human sperm mid-piece. By Real time PCR, we demonstrated the expression level of cox6b2 in asthenozoospermic samples.

Result: All data were initially tested to screen for normality and homogeneity of variance, and T-test or Nonparametric test were performed for the comparison of different groups. Statistically significant differences were determined at P

Conclusion: Our results demonstrated that low expression of cox6b2 defines inappropriate function of OXPHOS pathway, also the increased expression of these substances may influence sperm motility.

Keywords: Biomarkers, cox6b2, Male fertility, Oxidative phosphorylation , Asthenozoospermic

P46: Genotyping of palindromic structures and exact partial deletion amplicons of the AZFc to realize the spermatogenesis defects

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Background: AZFc microdeletion contains several genes that make contribution in fertility, including four copies of DAZ gene, two copies of CDY1 gene and three copies of BPY2 gene.

Methods: To determine the best useful genetic plan to access partial deletion of AZFc, ten STS marker on different amplicons of palindromic structures have genotyped. The test and markers were set up in 15 AZFc patients among 140 infertile men referred to Shahid Dastgheyb hospital, Shiraz University of Medical Sciences.

Result: Screening SY1198 marker in the g1, g2 and g3 amplicons also sY1189 in the distance between r2 and b3 parts of AZFc can complete previous defined markers (presence of SY1191 and deletion of sY1291) to detect the exact deletion of gr/gr part of AZFc. This study also showed that SY1189, SY1291 and SY142 markers can be employed to increase the accuracy of identifying the deletion of b2/b3 part which, includes deletions of two copies of DAZ gene and BPY2 gene. Specific markers; sY1191, sY1291, sY1189 and sY1198 were set up to detect deletion of b1/b3 part of AZFc. Also SY1313 was defined as an informative marker to differentiate CDY1b gene from its aligned copy, CDY1a gene.

Conclusion: High resolution markers defined in this study are useful for a genetic plan to find out losses of different amplicons and gene copies of AZFc region. The result is in accordance and a complementary method to previous studies and rare kits available on the market which have applied for rare genetic forms of AZFc.

Keywords: AZFc, Azoospermia, STS marker, Y chromosome, Male infirtility

P47: Aflatoxin B1-induced apoptosis at spermatogenesis lineage level; A model study on mice

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Background: Aflatoxin B1 (AFB1) is an aflatoxin produced by aspergillus flavus and A. parasiticus. It is arguably the most potent carcinogen known. It has been shown that, AFB1 adversely affects the sperm count and quality. Therefore, the present study was done in order to analyze the exact mechanism(s) by which AFB1 affects the spermatogenesis.

Methods: For this purpose, 24 mature male albino mice were divided into four groups as; control (received 20 µg corn oil, daily, ip) and test groups (0.2 µg, daily, ip). Following 7, 15 and 35 days the testicular tissues were dissected out and the mRNA and protein expression of p53, Bcl-2 and caspase-3 were assessed by using reverse-transcriptase PCR (RT-PCR) and immunohistochemistry, respectively.

Result: Observations demonstrated that AFB1, in a time dependent manner, up-regulated the p53 and caspase-3 expression. Meanwhile, the expression of Bcl-2 was decreased at both protein and mRNA levels versus control-sham animals.

Conclusion: In conclusion, our data showed that AFB1, negatively affects the Bcl-2 expression, which

in turn results in overexpression of p53. Enhanced p53 expression ultimately enhances the caspase-3 expression leading to severe apoptosis.

Keywords: Apoptosis, Bcl-2, Caspase-3, Spermatogenesis, Aflatoxin

P48: The importance of reproductive health

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Background: "Reproductive health" is just the right to safe abortion. Right? No. there is so much more. Reproductive health is defined as a state of physical, mental, and social well-being in all matters relating to the reproductive system, at all stages of life. Good reproductive health implies that people are able to have a satisfying and safe sex life, the capability to reproduce and the freedom to decide if, when, and how often to do so. Men and women should be informed about and have access to safe, effective, affordable, and acceptable methods of family planning of their choice, and the right to appropriate health-care services that enable women to safely go through pregnancy and childbirth. Reproductive health has a particular interest globally, and therefore we decided to write a systematic review article in this issue.

Methods: We searched the related search engines such as Pub med, Google scholar, Cochran library Science direct… and WHO database with these keywords: reproductive health, reproductive rights and sexual health.

Result: We found 23 articles in this issue in our search. The majority of articles illustrate that reproductive health is one of the most important parts of human rights but in some cultures and countries was ignored by political and governmental policies especially in developing countries where this need is critical.

Conclusion: Within the framework of WHO's definition of health as a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity, reproductive health addresses the reproductive processes, functions and system at all stages of life. Reproductive health, therefore, implies that people are able to have a responsible, satisfying and safe sex life and that they have the capability to reproduce and the freedom to decide if, when and how often to do so. Implicit in this are the right of men and women to be informed of and to have access to safe, effective, affordable and acceptable methods of fertility regulation of their choice, and the right of access to appropriate health care services that will enable women to go safely through pregnancy and childbirth and provide couples with the best chance of having a healthy infant. Ourroles as health care providers and first level of primary health care are so important. We can notice this issue and improve the quality of reproductive health in our society by preparing educational and counseling programs for our clients and inform them theirs rights and roles. So we can help the society to increase the level of reproductive health.

Keywords: Reproductive rights and sexual health, Reproductive health

P49: Study on the relationship between puberty and ovarian hormonal function in adult women

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Background: The hormonal function of ovary is various among individuals. It seems that origin of the diversity is evolutionary. Since, onset of puberty can be regulated by the environmental factors, the potential variety of ovarian hormonal function might be related to the tempo of puberty. The aim of this study was to investigate the relationship between tempo of puberty and level of salivary progesterone in the middle of menstrual cycle.

Methods: Thirty two volunteer women (age; 25 - 39 years) from rural districts of Khodabande zone were selected using clustering sampling. Participants were divided in two groups: group 1 (Precocious puberty,

age of puberty; 10 -14 years, n = 14) and group 2 (late puberty, age of puberty >14 years, n = 18). Saliva samples on the 15th day of menstrual cycle from participants were collected. Progesterone level of the samples were assayed using ELISA kit (salimetric, Cat.N 1-1502). Data were analyzed with GraphPad Prism software (Version.6) and inter-group comparison were performed using T test.

Result: The mean salivary progesterone levels in group 1 and group 2 were estimated to be 0.2 ng/ml and 0.132 ng/ml, respectively. This study revealed a significant difference in salivary progesterone concentration between two groups (p

Conclusion: Female with precocious puberty displayed high level of progesterone in middle of luteal phase compared with individual who have had late puberty.

Keywords: Puberty, Salivary progesterone, Ovarian hormonal function variation

P50: Assessing the effect of vitamin D and calcium on the treatment of infertility in women with polycystic ovary syndrome (PCOD): A review article

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Background: PCOS affects about 10 percent of women in the childbearing age and is one of the most common causes of infertility. Both PCOS and vitamin D deficiency are related to metabolic syndrome and insulin resistance. Hence, the present study was conducted to evaluate the effect of vitamin D and calcium on the successful induction of ovulation in infertile women with PCOS.

Methods: Searching for information sources (SID, Science Direct , Iran medex, Google Scholar, SCOPUS, PubMed) was carried out on conducted studies in the past decade. Words of vitamin D, calcium, PCOS, infertility, anovulation, insulin resistance were used as keywords and after removal of repetitive and common articles of databases, 35 articles were obtained. Subsequently, by a closer look at the titles and objects of them, the results of 20 related articles were extracted.

Result: In the studies reviewed, the positive effects of calcium and vitamin D supplementation on weight loss, follicle maturation, menstrual regularity, and improvement of hyperandrogenism, in infertile women with PCOS was checked.

Conclusion: Given the prevalence of vitamin D deficiency and the possible role of vitamin D and calcium in improvement of ovulation, further studies are necessary to determine the exact duration and dosage of these supplements in PCO patients.

Keywords: Anovulation, Calcium, Infertility, Insulin resistance, PCOS, Vitamin D

P51: The effect of royal jelly on sperm concentration and motility in immobilization stress-exposed male mice

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Background: In this modern world, stress is an unavoidable phenomenon. Immobilization as a model of stress produces an inescapable physical and mental stress. Several reports have suggested a stress related decline in semen quality, sperm concentration, morphology and percentage of motility. Royal jelly is mainly made of proteins, sugars, lipids and small amounts of mineral salts and vitamins. The amino acid content of royal jelly may play a role as well by enhancing acrosome reaction, sperm motility, or improving fertilization.

Methods: In this study, 40 male mice were divided into five groups containing eight animals in each group including:1-control group 2-immobilization stress group 3,4 and5 Immobilization stress + orally royal jelly group at doses of 50,100 and 200 mg /kg body weight of mice. At the end of treatment animals, were

sacrificed. The epididymal sperm count was determined by hemocytometry (Neubauer chamber) using the method described in the WHO manual. In order to observe mobility, 10 microliters of semen was placed on a glass slide and using a light microscope with a magnification of ×40, were counted in several microscopic fields.

Result: According to this study, the count and motility of sperm in the stress group compared to the control group showed a significant decrease (p

Conclusion: Royal jelly improved adverse effects of chronic immobilization stress on sperm concentration and motility.

Keywords: Fertility, Male mice, Royal jelly, Immobilization stress

P52: Protective effect of royal jelly against nicotine–induced embryotoxicity in adult female rats

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Background: Nicotine (NT), a potent parasympathomimetic stimulant, has been associated with serious adverse health effects. Royal jelly (RJ), a honey bee secretion used in the nutrition of larvae as well as adult queens, has remarkable pharmacological properties. The objective of present study was to explore the effects of RJ on early embryo development in NT-exposed adult female rats.

Methods: In this experimental study, 35 female Wistar rats were randomly divided into 7 equal groups including control, NT (0.50 mg/kg), NT (1.00 mg/kg), NT (2.00 mg/kg), NT (0.50 mg/kg) + RJ (100 mg/kg), NT (1.00 mg/kg) + RJ (100 mg/kg) and NT (2.00 mg/kg) + RJ (100 mg/kg) groups. Percentages of zygote, two cell embryo, blastocyst and hatched blastocyst were evaluated after 49 days.

Result: Percentages of zygote, two cell embryo, blastocyst and hatched blastocyst reduced in NT-treated groups in a dose-dependent manner. Noticeably, RJ co-administration ameliorated NT-induced early developmental arrest.

Conclusion: These findings suggest that NT-related developmental toxicities in rats can be reduced by RJ co-treatment.

Keywords: Early embryo development, Rat, Royal jelly, Nicotine

P53: Polycystic ovary syndrome (PCOS) is affected and protected by DD and DI genotypes of angiotensin converting enzyme (ACE) respectively: An update of a meta-analysis

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Background: Angiotensin converting enzyme (ACE) is an important enzyme involving in renal and cardiovascular systems physiopathology. One of these ACE related diseases is polycystic ovary syndrome (PCOS). We intend to update the only meta-analysis written by Jia et al. in 2013 about the association of ACE gene polymorphism and risk of PCOS. The reason of our attempt to update this meta-analysis was that they found no significant relation in their meta-analysis.

Methods: For this aim, we searched some databases for relevant documents. Finally we found 8 relevant papers that 6 of them had been covered by that meta-analysis of Jia's et al. In order to perform this meta-

analysis, we used comprehensive meta-analysis software. The analysis was done through P value and sample size of each study based on fixed-effect model.

Result: Analyses were performed in five different groups of alleles and genotypes. Among these five analyses, four of them were statistically significant. DD genotype of ACE is a risk factor for PCOS in comparison to other genotypes (P value = 0.013; odds ratio = 1.195), while DI is the protecting genotype (P = 0.009; OR = 0.819).

Conclusion: Hereby, we concluded that DD genotype of ACE is a risk factor for PCOS and DI is the protecting genotype. Hence it is suggested to use a very low dose of captopril as an ACE inhibitor in the PCOS patients having DD genotype in future as clinical trials.

Keywords: Angiotensin converting enzyme, Meta-analysis, Polycystic ovary syndrome

P54: Male factors: Do they have a role in recurrent pregnancy loss or In Vitro fertilization failure

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Background: Recurrent pregnancy loss has defined as three or more consecutive pregnancy losses. It is estimated that about 10 to 15% of confirmed pregnancies result in recurrent pregnancy loss (RPL).The medical evaluation of RPL to date has focused mainly on the female. It would make sense that recurrent pregnancy loss and In Vitro Fertilization (IVF) failure may have a male factor since the male gamete contributes one-half of the genomic content to the embryo.This paper aimed to gain the current data regarding male factor contributions to RPL.

Methods: A literature search was undertaken in March 2017,and included PubMed,Science Direct, CINAHL, and the Cochrane Library.

Result: In male partner of the patients with recurrent pregnancy loss have a significant increase in sperm DNA fragmentation and decreased sperm functions. We have more recently seen that the chromosomes within the spermatoozoan itself can be altered over time due to paternal age, medicinal effects, radiation effects,or environmental effects. Increased sperm disomy or aneuploidy will also result in increased risk for miscarriages. Besides the genes,morphologic factors of the sperm may be associated with miscarriages: whether there is an increase in tapered forms or whether the sperm nuclei and chromatin condensations are abnormal.Certain cytokine abnormalities (MBP) and anything affecting the vascularity of the placenta from paternal genes are suggestive of a risk for miscarriage.

Conclusion: Apart from routine semen analysis, sperm function tests may be an informative tool in cases of idiopathic recurrent pregnancy loss and IVF failure.Therefore, both the partners should be evaluated and treated simultaneously in order to achieve successful pregnancy.

Keywords: Abortion, Pregnancy, Paternal age

P55: Effects Of royal jelly on reproductive parameters

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Background: Royal jelly (RJ) is a production from the hypo pharyngeal, mandibular and post cerebral glands of nurse bees. RJ consists of 66% water, 15% sugars, 5% lipids, and 13% proteins, essential amino acids and vitamins. The aim of this study was determination of effects of royal jelly on reproductive parameters.

Methods: The aim of this study was to review the available studies on the role of Royal jelly on improving reproductive parameters in rat. For this purpose, the articles in databases Pub med and Google

scholar in connection with the evaluation of the relationship between Royal jelly and fertility in male rat were searched.

Result: A number of studies show a significant association between Royal jelly and improvement of reproductive parameters, especially, sperm count, sperm viability and motility and a number of studies expressed that the thickness of tunica albuginea (TAT) was increased significantly in the process.

Conclusion: Royal jelly improved reproductive parameters such as testicular weight, sperm count, viability, motility, deformity, DNA integrity, chromatin quality, serum testosterone and testicular tissue MDA levels in rats.

Keywords: Reproductive parameters, Tunica albuginea, Royal jelly

P56: Nicotine impairs rat folliculogenesis in a dose-dependent manner: Histomorphological evidence

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Background: Nicotine (NT), a receptor agonist of most nicotinic acetylcholine receptors, may have negative impacts on the female reproductive system. The purpose of current study was to determine the effects of NT on histomorphological features of ovarian follicles in adult female rats.

Methods: In this rodent model study, 20 female Wistar rats were randomly categorized into 4 equal groups including control, NT (0.50 mg/kg), NT (1.00 mg/kg) and NT (2.00 mg/kg) groups. The number of mature and atretic ovarian follicles as well as corpora lutea was recorded after 49 days.

Result: Administration of NT in female rats reduced graafian follicles and corpora lutea population and increased follicular atresia in a dose-dependent manner compared to control group.

Conclusion: Histological analyses revealed that NT treatment can cause folliculogenesis disruption in female rats. Further studies should be designed to uncover the pathophysiological aspects of NT-induced folliculogenesis impairment.

Keywords: Atresia, Folliculogenesis, Rat, Nicotine

P57: Combination of curcumin and raffinose improves ram sperm parameters during liquid storage at 5◦C

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Background: The aim of this study was to investigate the protective effects of the curcumin and raffinose, added to the Tris extender, on ram sperm motility, abnormality and viability during liquid storage up to 72 h at 5 oC.

Methods: Ejaculates collected from 4 rams, were evaluated and pooled at 37 oC. Each pooled ejaculate was divided into equal aliquots and diluted (37 oC) with the base extender with 9 groups, containing curcumin (100 (1)and 300 (2)µM), raffinose (75 (a)and 150 (b)µM) and their interaction (1a, 1b, 2a, 2b), at a final concentration of 200×106 sperm/mL (single step dilution), in a 15-ml plastic centrifuge tube. Diluted semen samples were kept in glass tubes and cooled from 37 to 5 oC in a cold cabinet, and maintained at 5 oC. Sperm parameters were determined at 5 oC for periods of 0, 24, 48 and 72 h of liquid storage.

Result: Combination of curcumin and raffinose gave the better protective rates of sperm motility, abnormality and viability, compared to other groups in 0 (2b) and 72 (1a) h of storage. Additionally, this combination effect provided more protection of sperm viability and abnormality in 48 h ($P < 0.05$).

Conclusion: The findings of this study showed that combination of curcumin and raffinose have greater benefits to ram sperm parameters during the liquid storage.

Keywords: Curcumin, Liquid storage, Raffinose, Ram sperm

P58: Recurrent spontaneous abortion (RSA) is associated with maternal KIR2DS1 in combination with paternal HLA-C2 gene: A case-control study

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Background: Among the approaches to recurrent spontaneous abortion (RSA), immune system and its involving molecules can be pointed out. Natural killer cells (NKs) are the most important cells in the fetomaternal immune tolerance inducing through interaction of maternal killer-cell immunoglobulin-like receptors (KIR) and fetal human leucocyte antigens (HLA). Hence, we intended to investigate maternal KIR, maternal and paternal HLA-C, and maternal-paternal KIR-HLA interaction in both RSA and control groups.

Methods: For the current case-control study in Khorramabad, 200 couples participated. DNA samples were genotyped based on polymerase chain reaction with specific sequences of primers (PCR-SSP) assay. The significance of associations were determined using the $\chi 2$ test with Yate's correction (or Fisher's exact test if necessary) in 2 by 2 tables for each KIR gene. This study has been approved by the ethic committee of Lorestan University of Medical Sciences with registration number "lums.rec.1394,10".

Result: Among the maternal KIR genes, maternal HLA-C genes, and maternal KIR-HLA combinations, no significant deference was observed between the cases and controls. A significant relation was found for maternal KIR and paternal HLA-C combination. The relation was for the activating combination KIR2DS1+HLA-C2 in the RSA group ($P=0.008$; $OR=2.27$).

Conclusion: The activating combinations of KIR-HLA seems to be more associated with RSA. Prediction of RSA with help of maternal KIR typing and paternal HLA-C typing can be possible in future.

Keywords: Abortion, HLA-C, PCR-SSP, KIR

P59: Comparison of colonization of co-culture of neonate mouse spermatogonial stem cells with sertoli cells in the presence and absence soft agar

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Background: To investigate the effects of soft agar on in vitro proliferation of mouse spermatogonial stem cells (SSCs) were co-cultured with sertoli cells obtained from 3 to 6- day old mice.

Methods: SSCs and sertoli cells were isolated from the testes of neonate male mice, and their purities were evaluated by flow cytometry technique using PLZF antibody. The isolated testicular cells were cultured in the absence (control group) or presence of soft agar-coated dishes (experimental group) along with leukemia inhibitory factor (LIF) and Glia cell line–derived neurotrophic factor (GDNF) for two weeks. Colony formation after the two weeks of culture was confirmed by alkaline phosphatase staining and the

expression of the undifferentiated genes ID-4 and Plzf using real-time PCR on the 14th day . The number and diameter of the colonies of SSCs were assessed by ImageJ software

Result: The number and diameter of colonies and the level of expression of ID-4 and Plzf (undifferentiated gene) increased in the experimental group compared with the control group. However, the expression of c-kit (differentiated gene) decreased in the experiment than in the control group.

Conclusion: Our findings show that culture in soft agar-coated dishes can have a positive effect on the enhancement of the proliferation of SSCs.

Keywords: Colonization, Mouse, Proliferation, Soft agar, Spermatogonial stem cell

P60: Molecular regulation of GnRH gene expression and its secretion via Kisspeptin - GPR54 system

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Background: GnRH synthesis and its secretion is regulated by vast neural network in hypothalamus. Kisspeptin neurons play important role in regulation of GnRH gene expression and its secretion. Prominent regions of Kisspeptin neurons in the brain are the arcuate nucleus (Arc) and anteroventral periventricular nucleus (AVPV). Kisspeptin binds to GPR54 receptor on membrane of GnRH neuron. GPR54 activates phospholipase C via G proteins, whose activation leads to cleave PI(4,5) P2 into DAG and IP3. Then, IP3 evokes the mobilization of Ca2+ from intracellular stores that leads to secrete GnRH. On the other hand, Kisspeptin activates otx2, transcription factor.

Methods: Activated otx2 increases GnRH gene expression via binding to kisspeptin- response element (KsRE) on GnRH promotor. KISS1 system is sensitive to changes in the body energy status.

Result: Decrease of Kiss expression and its receptor lead to induction of central Hypogonadism in metabolic disease such as diabetes and obesity.

Conclusion: According to important Kiss system in metabolic regulation of reproduction targeting of this signaling can be useful in infertility treating of metabolic disease.

Keywords: Hypogonadism, IP3, KISS1/GPR54, Metabolic stress, GnRH

P61: Mobile radiations effects on female rats' endometrium

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Background: It has been suggested that mobile radiations (MRs) have a negative impact on fertility and lead to reproductive problems. This study was conducted to evaluate the effects of MRs on rat endometrium.

Methods: Adult female Wistar rats were randomly divided into 3 groups (n=6) including untreated control, MRs1 (10 days treatment and then, sampling) and MRs2 (10 days treatment and then, sampling after 40 days). The animals in MRs groups were exposed to mobile calls 12 times every day and each time for 10 minutes for 2 weeks and 5 days in a week by Huawei H30–U10 cell phone.

Result: The results of endometrium histological analyses showed lymphoid cell infiltration in mucosal glands, reduction in the glands number and glands epithelium destruction in MRs1 group. In MRs2 group, hyperplasia of epithelium, glands destruction and

lymphoid cell infiltration in mucosal glands were observed.

Conclusion: Mobile radiations can result in remarkable histological changes in rat's endometrium.

Keywords: Endometrium, Histology, Radiation, Rat, Mobile

P62: Impact of hypoxic condition on developmental characteristics of mouse blastocysts

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Background: Atmospheric O2 concentration during in vitro embryo culture due to increasing the free O2 radical's levels has a destructive effect on blastocyst quality. Furthermore, in vivo oxygen tension in the reproductive tract of mammalian species is approximately 2 - 8%. Therefore, it is not unexpected that in vitro development of embryos is improved under physiologic oxygen tension. Although this is demonstrated by some recent studies, there are no reports of the importance of O2 reduction in the invasion ability of blastocyst during implantation step. Therefore, in this study, effects of hypoxia condition on the expression level of invasion-related (Mmp-9 and Upa) genes in blastocysts were examined.

Methods: In this regard, 2-cell embryos from NMRI mice were distributed into hypoxia (5% O2) and atmospheric (20%O2) groups and were cultured into blastocyst stage. Then, the effect of O2 concentration on the genes expression as well as blastocyst formation, hatching and implantation rate were studied.

Result: According to our results, blastocyst formation, hatching and implantation rates are improved when the embryos are cultured in hypoxic condition. Furthermore, real-time RT-PCR analysis data showed an increase in the expression level of Mmp-9 in 5% O2 group. However, there was no significant differences in Upa expression between two groups.

Conclusion: In conclusion, it seems that hypoxic condition through increased quality and invasion ability of blastocyst could improve the implantation rate and highlight this condition support better embryo development during in vitro culture.

Keywords: Blastocyst, Embryo, Hatching, Implantation, MMP9, Oxygen, UPA, Hypoxia

P63: Anti-proliferation effects of the hydroalcoholic extract of rorippa nasturtium aquaticum on human cervical cancer cells

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Background: Cervical cancer is highly prevalent in women. Annually, around half a million women are diagnosed with invasive cervical cancer worldwide. Recently, prevention and treatment of cancer using herbs has drawn the attention of many researchers. Watercress is a plant from the Brassicaceae family, which has been recommended throughout the history for the treatment and prevention of various diseases. Isothiocyanate in Brassicaceae plants such as the watercress has been considered as an effective anticancer agent.

Methods: In this study, watercress plant extraction was performed by soxhlet. The extract was applied on cancerous Hela cell line and fibroblasts at 0625, 0.125, 0.25, 0.5, 1, 2 mg/ml concentrations and the mortality rates of the cells was examined at three durations of 24, 48, and 72 hours after the incubation using the MTT test and compared with the control group.

Result: Results of the MTT test showed that, as the concentration and duration of the extract implementation increases, the cell survival rate of the cancerous hella cell line decreases. Besides that, with effectiveness on fibroblast cell line, IC50 value of these cells after 24, 48 and 72 h were 415 mg/ml, 386 mg/ml and 372 mg/ml, respectively.

Conclusion: The hydroalcoholic extract of watercress can inhibit the growth of Hella cells and, on the other hand, does not have cytotoxicity against fibroblast cell line. Thus, it can be considered as a safe alternative.

Keywords: Cervical cancer, DPPH, MTT, Watercress, Soxhlet

P64: Protective effects of vitamin E against mobile radiations induced histological alterations in rats' endometrium

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Background: It has been shown that mobile radiations (MRs) have detrimental effects on uterine histoarchitecture and vitamin E as a powerful antioxidant can exhibit repro-protective effects. This study was carried out to examine the protective effects of vitamin E against MRs-induced histological changes in rat endometrium.

Methods: Adult female Wistar rats were randomly categorized into 3 groups (n=6) including untreated control, MRs (10 days exposure to mobile calls, 12 times every day and each time for 10 minutes by Huawei H30–U10 cell phone) and MRs + vitamin E (receiving 0.01 ml intramuscular injections of vitamin E before MRs exposure).

Result: The endometrium histological evaluation revealed lymphoid cell infiltration in mucosal glands, reduction in the glands number and glands epithelium destruction in MRs group. Notably, vitamin E administration caused remarkable improvement in endometrial histoarchitecture.

Conclusion: Vitamin E can reduce MRs-related histological changes in rat uterus probably due to antioxidant properties.

Keywords: Endometrium, Radiation, Rat, Vitamin E, Mobile

P65: The effect of cryopreservation on human sperm vacuoles

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Background: The nuclear vacuoles in human spermatozoa revealed with the introduction of Nomarski differential interference contrast microscope. Cryopreservation is associated with alterations of sperm structure. The most important impairments of sperm morphology after cryopreservation, often described in the literature, are damage to sperm membranes, coiled tails and acrosomal defects. Therefore, less attention has been paid to detailed assessment of sperm head structures such as the vacuole.

Methods: In 30 sperm samples from subjects, analysis of conventional sperm parameters (motility, vitality, and normal morphology) and a morphological analysis at high magnification for vacuoles examination was done before cooling and after warming.

Result: Significant reduction of progressive motility and vitality was observed following cryopreservation ($P < 0.001$). Also, normal morphology decreased significantly after cryopreservation ($P < 0.05$). Spermatozoa with a vacuole-free head had a

significant reduction in cryopreservation group (P= 0 .013). The percentage of spermatozoa with small vacuole increased slightly, but not significantly after cryopreservation (P= 0 .296).

Conclusion: MSOME is a powerful research tool for investigating spermatozoa abnormalities such as vacuole that exerts a negative effect on ART outcomes.

Keywords: MSOME, Spermatozoa, Thawing, Vacuoles, Freezing

P66: Necessity of genetic tests before beginning assisted reproductive procedures

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Background: In general, infertility is defined as not being able to get pregnant (conceive) after one year of unprotected action to pregnancy. The role of genetics in the incidence of both male and female infertility has been firmly established. Applications of diagnostic genetic tests are essential to assess the causes of infertility and accordingly offer new targeted therapies to reduce treatment failure.

Methods: A comprehensive review was performed in PubMed articles published from 2008 to 2017,using the key words “epigenetic and gene's role in the infertility”, “genetic factors and assisted reproductive treatment failure”, “new treatments for infertility based on genetic factors”.

Result: The relationships between chromosomal abnormalities, imprinting pattern defects, epigenetic changes, mitochondrial mutations and polymorphisms, copy number variations, and mutations in certain genes, especially genes related to the gametogenesis, and incidence of infertility and unsuccessful therapies based on assisted reproductive technology, were determined. The presence of genetic mutations, chromosomal anomalies, DNA damage in apparently healthy sperm and ovule - silent carriers-, recurrent abortions, lack of response to fertility treatments or successful response with occurrence of diseases and malignancies because of anomalies transfer to the next generation, reveal importance of genetic assessments before using of assisted reproductive procedures. For example, micro deletion on the Y\X chromosome, or mutation of CATSPER, MEIOB, DICER and MSY2 genes on autosomal chromosomes results in male and female infertility, infertility treatment failure, and will transfer to next generation as pre-mutations.

Conclusion: Given the increasing prevalence of infertility, and imposing heavy economic, social and psychological costs and pressures of assisted reproductive technology on couples and society, beside the importance of produce, healthy offspring, it is significant to genetic counseling and provision of individual, reproductive history for primary screening. Because of the presence of micro deletions, rearrangements or balance displacements, therefore resulting in inadequate chromosomal analysis, it is recommended to doing diagnostic genetic tests for at least one sample of semen. If abnormal test results were seen, more accurate genetic analysis is essential for the couples.

Keywords: Assisted reproductive technology (ART), Diagnostic genetic tests, Genetic counseling, Infertility

P67: Testicular human spermatozoa cryopreservation: Correlation between sperm head vacuoles, DNA fragmentation and mitochondrial membrane potential

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Background: There are difficulties associated with testicular sperm freezing. Different methods of sperm cryopreservation were developed. Not enough detailed studies about the real efficacy of these techniques exist. For sperm morphologic assessment, MSOME is able to identify not only conventional morphological sperm alterations, but also sperm head vacuoles.

Methods: After preparation, testicular sperm extraction samples of 15 azoospermic men, aged 20-40 years old were divided into three groups. Group 1 was assessed freshly. Group 2 was cryopreserved with vitrification method and Group 3 with cooling in liquid nitrogen vapor using droplet. Pre and post warming assessment in terms of spermatozoa head vacuoles by MSOME, DNA fragmentation and mitochondrial membrane potential was performed.

Result: The number of spermatozoa with no vacuoles significantly decreased after two cryopreservation techniques ($P < 0.001$). There were no significant differences between groups regarding small and large vacuoles ($p > 0.05$). DNA fragmentation and mitochondrial membrane potential increased after cryopreservation ($P < 0.001$). There was a significant positive correlation between spermatozoa with large vacuoles in group 2 and DNA fragmentation and a significant positive correlation between spermatozoa with no vacuole and mitochondrial membrane potential in groups 2 and 3.

Conclusion: Cryopreservation affects spermatozoa vacuolization, DNA structure and mitochondrial membrane potential. Using MSOME in selection of post thaw morphologically normal testicular spermatozoa for ICSI procedure will be of particular value.

Keywords: Azoospermia, Cryopreservation, DNA Fragmentation, MSOME, Vacuoles, Spermatozoa

P68: Protective effect of walnut leaves on testicular tissue and sperm parameters in rats irradiated by gamma rays

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Background: Radioprotectors are agents required to protect biological system exposed to radiation, either naturally and they protect normal cells from radiation injury in patients. Previous studies have shown antioxidants top of walnut leaves. The growing interest in the substitution of synthetic food antioxidants by natural ones has fostered research on vegetable sources and on the screening of raw materials, for identifying new antioxidants. The aim of this experimental study was to investigate the detrimental radioprotective effects of walnut leaves on testicular tissue and sperm quality in rats.

Methods: Thirty mature male rats were randomly divided into three equal groups (n=6). The positive control group (exposed to 10 Gy of gamma rays) and groups of walnut leaves and gamma ray (300,200,100 mg / kg) were administered to mice 60 min before gamma irradiation and histological parameters such as testis weight, sperm count, frequency of abnormal sperm, repopulation index, on the 45th day. The third group as the control group received No gamma-ray and walnut leaves. Following exposure x-ray animals after 45 days to detect effects, the epididymal tissues were taken for sperm analysis as well as testes removed for histological examination.

Result: The results of effects showed that the epididymal sperm concentration and the percentage of progressive sperm motility significantly increased ($p< 0.01$), and the abnormal sperm rate significantly decreased ($p< 0.01$) in experimental groups compared to the positive control group. Testicular histology analysis, 45 days after exposure x-ray showed that walnut leaves have protective alterations such as epithelial vacuolization and seminiferous tubles atrophy.

Conclusion: The walnut leaves can protect testicular tissue and decrease sperm quality in contrast to the damaging effects of gamma rays. So, they can be used as a natural herbal medicine in patients treated with radiation and gamma radiation shielding used to maintain male fertility.

Keywords: Histological changes, Rats, Sperm parameters, Testis, Walnut leaves

P69: Effective interventions on sexual problems in women with endometriosis: A narrative review

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Background: Endometriosis as a gynecological problem shows symptoms such as chronic pain, dysmenorrhea, and pain during urination and infertility. One of the most important problems encompasses sexual problems that affect marital relationships and people's quality of life. The aim of this review article was reviewing the effective interventions on sexual problems in women with endometriosis.

Methods: In this study, researchers searched Basic databases "Google Scholar" and then search the more specific database such as MEDLINE (via PubMed), Science Direct, and Springer. With keywords of endometriosis, chronic pelvic pain, sexual problems, therapeutic intervention, studies from 2000 to 2016 were extracted. The study population were people with the diagnosis of endometriosis with different degrees of pain. In the first phase searching, 157 articles were extracted and after reading the title and abstracts and full texts, finally 23 articles were chosen for writing the current review article.

Result: Finally, the findings were organized in 2 categories and three subcategories. First category included biologic therapy (1): hormonal therapy with OCP, Cyproterone acetate, progesterone (progestin), NSAID, gonadotropin-releasing hormone agonist therapy, (2): Complementary therapies included acupuncture, massage therapy and yoga, (3): Surgical treatments included laparoscopy and second category (psychological treatments) encompass (CBT), couples counseling, group therapy based on overcoming negative automatic thoughts.

Conclusion: Of biological interventions, only it is not clear whether NSAID therapy improves pain or not. Other biological factors such as gonadotropin-releasing hormone agonist therapy and complementary therapies, had a positive effect on people's sexual satisfaction. Laparoscopic treatments with follow-up period of 6 to 12 month, have an improvement role in dyspareunia, and with 2-5 follow up period have a positive effect on sexual function, pleasure, and dyspareunia, quality of sexual life and frequency of intercourse, too. Since endometriosis is dependent on biological and psychological factors, benefits of multidimensional approaches are effective in improving the sex life of women.

Keywords: Chronic pelvic pain, Sexual problems, Therapeutic intervention, Endometriosis

P70: Association study of recurrent abortion with chromosomal abnormalities in 50 affected couples in Northwest of Iran

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Background: Recurrent spontaneous abortion is the loss of two or more than two consecutive pregnancies before the twentieth week of pregnancy. Etiology of multiple genetic and environmental factors is fetal miscarriage. Fetal chromosomal abnormalities and parents play an important role in the occurrence of spontaneous abortion with embryonic stems. The purpose of this work was to investigate chromosomal abnormalities associated with RPL parents in northwest of Iran.

Methods: In this study, 50 couples, with 2 or more spontaneous abortions as patients were evalusted. For parents, cytogenetic analysis was applied to assess chromosomal abnormalities. The study was approved by an accredited medical ethics committee.

Result: Parent chromosomal abnormalities were detected in 5 cases that many of these disorders were structural abnormalities including, inversion of chromosome 9 in two cases, polymorphism 22ps+ in one case, polymorphism 15ps+ in one case and marker chromosome in one case.

Conclusion: According to our findings, 5% of the subjects had structural abnormalities and chromosomal rearrangement which corresponded to the consequences of previous surveys. At the same time, viewing these disorders for prenatal genetic diagnosis for achieving a desired result confirms pregnancy.

Keywords: Chromosomal polymorphism, Inversion of chromosom 9, Marker chromosome, Recurrent pregnancy loss, Chromosomal abnormality

P71: A narrative review of effect of medicine on quality and quantity of sperm

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Background: Fertility and increasing population are one of the major concerns in many countries. The aim of this study was to review whether medicine can affect quality and quantity of sperms.

Methods: This study was a review of the scientific data bases, through Search in websites, books and other authoritative scientific sources.

Result: Clofibric acid is prescribed as an antilipemic agent in cardiovascular patients and can lead to reduced sperm motility and decreased androgens in plasma. Ethambutol is effective in treating tuberculosis and can cause reduction of weight of testicles and number of sperms. Also, there were sperms with head anomalies and immature chromatin. Phenylhydrazine has been used clinically to treat polycythemia vera and can reduce sperm quality. In some studies, it was shown that the administration of vitamin C and royal jelly reduces side effects of this medicine. L-carnitine with oxidation of fatty acid provides an energy source for sperms. Also, this medicine protects sperm cell membranes from damage by free radicals of oxygen and generally increases the number and motility of sperms. Cyclophosphamide leads to reduction in the number of live sperms and increase in the abnormalities of sperms caused reduced fertility that ginseng or vitamin E can alleviate these complications.

Conclusion: As the medicines have therapeutic effect, they have side effects. Therefore, all aspects should be investigated properly so that there is the least harm to the patients.

Keywords: Infertility, Sperm, Spermatogenesis, Medicine

P72: The critical role of liver in PCOs management

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Background: Polycystic ovary syndrome (PCOS) is the most common (5-15%) endocrine disorder with serious complications and almost unclear pathophysiology in women of reproductive age. Due to the high prevalence, uncertainty of the causes, medical, familial and social complications of PCOs, revision of the management with another perspective might be helpful. The aim of this study was to investigate the role of liver in the proper function of ovaries in traditional Iranian medicine and may offer new models in the management of PCOs.

Methods: This is a descriptive study done by using Traditional Persian Medicine(TPM) references such as Canon of Medicine.

Result: PCOs has been described by Persian philosophers under the headings of amenorrhoea, infertility and uterine disorders. TPM scholars noted combination of signs with oligo-amenorrhoea including hirsutism, obesity, acne and infertility which are suggestive for PCOs. According to TPM view points, liver is one of the main organs that receives all blood coming from stomach and bowel through portal vein, manufactures nutrients, and then distributes them

to the rest of the body. So liver failure would lead to dysfunction of other organs such as ovarian diseases.

Conclusion: Liver is involved with almost all pathways to growth, nutrient supply, energy provision and reproduction.There is an interconnected between the healthy ovaries and proper function of main organs specially liver. It seems that checking up, protecting and strengthening liver function is a fundamental step to achieving or maintaining reproductive system health and may be helpful in PCOs treatment.

Keywords: liver, Pcos, Traditional Persian Medicine

P73: The main organs role in male infertility in viewpoints of traditional Persian medicine

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Background: Infertility and other complications are one of the major problems today. According to WHO, 15% of couples (48.5 million) suffer from infertility. Male factors alone infertility cases are 20% to 30%. Iranian Traditional Medicine(TIM) is a holistic medical school. The aim of this study was to evaluate the role of major organs in the causes and treatment of male infertility in viewpoints of TIM.

Methods: This is a descriptive study done by using (TIM) references such as Canon of Medicine.

Result: Philosophers and physicians of TIM believed that the base material of semen is obtained of all organs particularly main organs such as brain, heart and liver. Therefore, impairment of non-genital organs, especially the main organs such as the brain, liver and heart are also known factors for infertility.

Conclusion: From the perspective of TIM, healthy semen is obtained from healthy organ. Proper fertilization needs that organs of digestion and main organs be healthy. For example, evidence of the weakness of brain function can be cited in the production of sex hormones from the pituitary disorders. It seems to check a person's health, especially the health and treat any possible disorders of the main organs perhaps increase the success of ART treatment with the use of traditional Iranian medicine.

Keywords: Iran, Main organs, Traditional medicine, Infertility

P74: The effects of diet on the polycystic ovary syndrome: A review article

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Background: Polycystic ovary syndrome is the most common endocrine disorder among women of reproductive age, affecting approximately 4% of women. Dietary and exercise interventions also have some impact on improving insulin sensitivity. In general, therapies that lower insulin levels and insulin resistance and lead to weight loss may prove to be useful for treating PCOS.

Methods: We searched the related search engines such as PubMed, Google Scholar, Cochran library Science direct and WHO database with these keywords: PCOS, infertility and diet.

Result: We found 23 articles in this issue in our search. The majority of articles indicated that adherence to a low-carbohydrate diet led to improvement in body weight, percent free testosterone, LH/FSH ratio, fasting serum insulin, and symptoms in women diagnosed with PCOS over a six-month period. Further research is needed to determine if the benefits were from weight loss or from carbohydrate restriction specifically.

Conclusion: Recent studies allow us to make recommendations on macronutrient intake. Fat should be restricted to ≤30% of total calories with a low proportion of saturated fat. High intake of low GI carbohydrate contributes to dyslipidaemia and weight gain and also stimulates hunger and carbohydrate craving. Diet and exercise need to be tailored to the individual's needs and preferences. Calorie intake should be distributed between several meals per day with low intake from snacks and drinks.

Keywords: Polycystic ovary syndrome (PCOS), Diet

P75: Impacts of conjugated linoleic acid on metabolic, hormonal status and sperm parameters in male mice model of obesity induced by different oils

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Background: Preventing or treating obesity in male has a positive effect on fertility rates. Since conjugated linoleic acid (CLA) can reduce the obesity, the purpose of this study was to investigate the impacts of CLA on metabolic-hormonal status and sperm parameters in male mice model of obesity induced by different oils.

Methods: In this cross-sectional study, 60 male NMRI mice were used. They were randomly divided into 6 groups delivering different sources of oil including: A (Fish oil), B (Olive oil), C (Hydrogenated sunflower oil), D (Flax oil), E (Dehydrogenated sunflower oil), and F (Control). After 14 weeks of being on a diet of different oils, 5 mice of each group continued their diet of different oils and 5 remaining mice of each group were treated with CLA for 4 more weeks. Following 18 weeks, blood samples were collected from the heart to determine the blood metabolites and hormones. Spermatozoa were obtained from the epididymis to assess sperm parameters.

Result: The highest HDL level was observed in the dehydrogenated sunflower oil group. CLA treatment reduced HDL levels significantly in this group (P=0.0005). Olive oil increased triglyceride concentrations compared to the control group. CLA treatment decreased triglyceride in the olive oil group (P=0.03). Fish oil increased FSH significantly. CLA treatment reduced FSH levels significantly in the fish oil group (P=0.0001). Most abnormal sperm morphology was observed in hydrogenated sunflower oil and olive oil. CLA reduced abnormal morphology of sperm in hydrogenated sunflower (P= 0.03) and olive oils (P=0.05).

Conclusion: CLA treatment could attenuate negative impacts of different oils specially sunflower and olive oils on sex hormones and sperm parameters.

Keywords: Conjugated linoleic acid, Hormone, Oil, Spermatozoa, Obesity

P76: The effect of methanolic extract of coconut meat on quality and quantity indexes of sperm in adult rats

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Background: Using new potent therapeutic regimens containing natural materials in the treatment of metabolic complications can be interesting because of their multipotent potentials, safety and lower adverse and side effects. Coconut is one of the highest nutritional and medicinal value plants with various fractions which play a major role in several biological applications but there is no report about its effects oil on male reproductive function.

Methods: In this study 20 adult male wistar rats were divided into 4 groups including: control and 3 treatment groups which received 100, 150 and 200

mg/kg/day methanolic extract of coconut meat (MECM) by oral gavage for 40 consecutive days. Finally animals were euthanized and their left epididymis was removed and dissected in Ham's F10 solution, incubated at 37°C and sperm motility was evaluated. Total number of sperm per ml was calculated by using a hemocytometer. Smears were prepared from the suspension, stained with eosin-nigrosin and examined for sperm viability and abnormalities by light microscope.

Result: Results showed that MECM had no significant effect on total number of sperm in treated groups compared to control group but it could increase viability of sperm in a dose dependent manner significantly (p

Conclusion: It can be concluded that coconut could have a beneficial effect on quality of sperm in adult male and improve male reproductive function.

Keywords: Methanolic extract, Sperm analysis, Coconut

P77: Wheat germ oil subdues carbon tetrachloride-induced asthenozoospermia in mice

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Background: Wheat germ oil (WGO) as one of the nature's best sources of vitamin E is known for its antioxidant properties. This study was undertaken to explore the possible protective effects of WGO on epididymal sperm motility in male mice exposed to carbon tetrachloride (CCL4).

Methods: Forty-eight adult male mice were randomly categorized into 6 equal groups (n = 8) including untreated control, CCL4 (50%, 1 mL/kg; IP), CCl4 + WGO (250 mg/kg; PO), CCl4 + WGO (500 mg/kg; PO), WGO (250 mg/kg; PO) and WGO (500 mg/kg; PO). Epididymal sperm motility of all animals was examined after 28 days.

Result: Significant sperm motility reduction was observed in CCL4-treated mice in comparison with control ones. Remarkably, WGO co-treatment in mice led to considerable sperm motility increase compared to CCL4-exposed mice. These findings suggest that WGO as a potent cyto-protective compound can suppress CCL4-induced asthenozoospermia in mice.

Conclusion: WGO improved adverse effects of oxidative stress on asthenozoospermia.

Keywords: Asthenozoospermia, Mouse, Oxidative stress, Wheat germ oil, Carbon tetrachloride

P78: The effect of Quercus brantii fruit methanolic extract on mean volume and total number of Leydig cells in type II diabetic rats

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Background: Fruit of Iranian oak (Quercus brantii) possess many fatty acid and pleiotropic therapeutic activities that is used widely in Iranian traditional folkloric medicine. Our previous study showed that Q. brantii had a hypoglycemic effect in diabetic rats but there is no data about effects of Q. brantii fruit on Leydig cells in diabetic males.

Methods: Twenty adult male wistar rats were divided into 4 groups including: control, sham, diabetic and treatment. Type II diabetes was induced by high fat diet and 35 mg/kg streptozotocin in diabetic and treatment groups. One week after streptozotocin injection, sham and treatment groups received 100 mg/kg/day total methanolic extract of Q. brantii by oral gavage for 40 consecutive days. Finally, animals

were euthanized and testes were fixed in 10% neutral buffered formalin. The samples were processed by standard paraffin embedding and serially sectioned at 20 µm thickness. Twenty to twenty-five sections per animal were selected through systematic random sampling and stained by H&E. Mean volume of Leydig cells (MV) was estimated by point sampled intercept method and its total numbers (TN) were estimated by optical dissector and stereo-investigator system using an unbiased counting frame.

Result: Results showed that administration of Q. brantii had no effect on MV and TN in normal rats. Diabetes decreased MV and TN significantly (p0.05).

Conclusion: It can be concluded that Q. brantii can be considered as a suitable protective strategy for improvement of diabetes side effect in testis and can have a supportive effect on Leydig cells and increase fertilization ability in the diabetic males.

Keywords: Diabetes, Leydig cell, Quercus brantii, Stereology, Streptozocin, Iranian oak

P79: The effect of wheat germ oil on sperm concentration in carbon tetrachloride-exposed male mice

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Background: The bio-protective effects of wheat germ oil (WGO) as an oxidative damages inhibitor anti-oxidant have been attributed to its high vitamin E content. This study was carried out to investigate the effects of WGO on epididymal sperm quantity in male mice exposed to carbon tetrachloride (CCL4).

Methods: Forty-eight adult male mice were randomly divided into 6 equal groups (n = 8) including untreated control, CCL4 (50%, 1 mL/kg; IP), CCl4 + WGO (250 mg/kg; PO), CCl4 + WGO (500 mg/kg; PO), WGO (250 mg/kg; PO) and WGO (500 mg/kg; PO). Epididymal sperm count in all experimental groups was evaluated after 28 days.

Result: The results showed that CCL4 administration causes remarkable sperm count reduction compared to the control mice. Notably, coadministration of WGO with CCL4 in mice resulted in a significant sperm concentration increase compared to CCL4-treated mice. These findings indicate that WGO can be a potent protective agent against CCL4-induced reproductive damages in mice.

Conclusion: WGO improved adverse effects of oxidative stress on sperm concentration.

Keywords: Mouse, Oxidative stress, Sperm concentration, Wheat germ oil, Carbon tetrachloride

P80: The effect of two types of aerobic training on quality and quantity indexes of sperm in adult rats

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Background: Lifestyle factors have a dramatic impact on general health and reproductive performance in the general population. The importance of exercise along with a healthy balanced diet is well known to be crucial for health. Despite global increased interest in exercising, an inadequate knowledge and ignorance regarding exercise routines can possibly lead to harmful side effects. This study was conducted to compare the effect of continuous (CT) and High intensity interval aerobic training (HIIT) on male reproductive function.

Methods: Fifteen adult male wistar rats were homogenously divided into three groups including: control, CT and HIIT. Animals were subjected to 10 weeks treadmill running, either HIIT or distance-matched CT on a motorized treadmill. Finally animals were euthanized and their left epididymis was removed and dissected in Ham's F10 solution, incubated at 37°C and sperm motility was evaluated. Total number of sperm per ml was calculated by using a hemocytometer. Smears were prepared from the suspension, stained with eosin-nigrosin and examined for sperm viability and abnormalities by light microscope. Teratozoospermia index (TZI) is defined as the number of abnormalities present per abnormal spermatozoa.

Result: Results showed that CT had no significant effect on sperm number but it could increase all the quality indexes of sperm. Sperm analysis also indicated that HIIT reduced total number, viability, motility and increased TZI significantly (p

Conclusion: It can be concluded that HIIT-related reproductive dysfunction remains as a strange paradox as there is a fine line between the correct and incorrect amount of exercise. Our results reveled that CT unlike HIIT can improve sperm quality.

Keywords: Continuous training, High intensity interval training, Sperm analysis, Aerobic training

P81: Investigation of polyunsaturated fatty acids omega-3 effects on In-Vitro fertilization rate in the female mice with polycystic ovarian syndrome

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Background: Polycystic ovarian syndrome is the most common endocrine disorder among women in reproductive age. These women are in high risk for early onset of cardiovascular diseases. The aim of this study was investigating the effects of omega-3 fatty acids supplement on In-Vitro fertilization rate in the female mice with polycystic ovarian syndrome.

Methods: 42 female mice were randomly divided into 6 groups as described below according to the treatment they received; N-C (Normal Control: Without PCO + Sesame oil treatment), C (Control: PCO + No treatment), N-O-300 (Without PCO + O3 300mg/kg per day), P-O-300 (PCO + O3 300mg/kg per day), N-O-600 (Without PCO + O3 600mg/kg per day), P-O-600 (PCO + O3 600mg/kg per day). In this study, intramuscular injection of estradiol valerate was used to make the samples infertile. The treatment period was 56 days. Histological analysis, biochemical parameters evaluated on the samples of ovary and hormone therapy tests were evaluated on the samples with in-vitro fertilization (IVF).

Result: Results indicated that embryo formation in the two-cell and blastocyst levels increased in N-O-300, N-O-600 groups in comparison with other groups and also percentage of zygote formation increased in P-O-300, P-O-600 groups in comparison with C group.

Conclusion: Omega-3 fatty acids had beneficial effects on embryo formation rate in women with polycystic ovary syndrome.

Keywords: Female mice, In-vitro fertilization, Omega3, Ovary, Polycystic ovarian syndrome, Polyunsaturated fatty acids

P82: Evaluation of TSLP promoter polymorphism between ectopic tissue and peripheral blood in endometriosis patients

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Background: Endometriosis is a chronic inflammatory disease characterized by the presence of tissue resembling the endometrium. By aberrant production of cytokines, immune dysregulation has been proposed as a mechanism in endometriosis. Thymic Stromal Lymphopoietin (TSLP) is a critical cytokine that one single-nucleotide polymorphism (SNP), C-847T, in the promoter region of this gene creates a binding site for the transcription factor activating protein (AP)–1 subsequently increases expression of TSLP. The present study aimed to evaluate the frequency of TSLP promoter polymorphism in endometrioma tissue and comparing it to peripheral blood in endometriosis patients.

Methods: This study was conducted on 28 endometriosis patients diagnosed by laparoscopy and confirmed with pathological test at Royan Institute. PCR-sequencing was done on both extracted DNA samples from endometriotic tissues and peripheral blood of patients. The statistical analysis was done by Chi Square (P

Result: In women with endometriosis, the mean of age and Body Mass Index (BMI) were 30.34±4.34 years old; 23.56±2.79 kg/m2, respectively. Although the CC genotype wasn't detected in both groups, CT and TT genotypes were observed to be 78.5% and 21.5% in DNA of endometriotic tissue, whereas these frequencies were 64.5% and 35.5% in DNA extracted from whole blood.

Conclusion: Our results showed that the frequency of C-847T genotypes is altered between ectopic tissue and peripheral blood; however, larger sample size studies is essential. It seems the assessment of polymorphism in ectopic tissue could create a better view for influencing SNP in etiology of endometriosis.

Keywords: Polymorphism, Thymic stromal lymphopoietin, TSLP, Endometriosis

P83: Evaluation of helicobacter pylori antibodies in blood and seminal fluid of infertile men

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Background: Helicobacter pylori infection remains highly prevalent in developing countries. As a result of antigenic mimicry between H. pylori flagella and spermatozoa (the only flagellated human cell), the antibodies produced against the H. pylori may potentially cross react with sperm flagellum. So, in this study, we investigated the presence of antibodies against H. pylori and H. pylori CagA antigen in seminal fluid and serum of infertile men to elucidate the role of H. pylori infection in idiopathic infertility.

Methods: This was a case- control study comprising 30 infertile men and 30 healthy donors who referred to Motahhari Hospital, Urmia, Iran for assisted reproduction. ELISA evaluation of antibodies against the H. pylori and Cag A antigen for sero- positive individuals was performed.

Result: The seroprevalence of IgG against the H. pylori in both infertile men and healthy donors was 93.3% and 100% (P>0.05), while the percentage of IgA positive against H. pylori in the semen of the infertile and control groups were 0 and 3.3, respectively. Serum levels of IgG antibodies against CagA H. pylori were 7.60 and 3.73 in infertile and control groups. The level of IgA against the CagA H. pylori was undetectable in both groups.

Conclusion: Although the prevalence of H. pylori in both infertile men and healthy donors was high, there was no statistically significant relation between the level of H. pylori antibodies and male infertility.

Keywords: CagA, Male infertility, Seminal fluid, Serum, Helicobacter pylori

P84: Genetic variant of HDAC3 and idiopathic male infertility in a population in Iran

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Background: In humans, approximately 15% of couples experience some form of infertility and 50% of these infertile couples can be ascribed to the male factor. More than 3000 genes are considered to be involved in male's spermatogenesis. HDAC3 gene is located on 5q21 and encodes a protein with 428 amino acids. Histones play a critical role in transcriptional regulation, cell cycle progression, and developmental events. The protein encoded by this gene belongs to the histone deacetylase/acuc/apha family. The mechanism of action of the HDAC involves removing the acetyl group from the histones comprising the nucleosome. HDAC3 is expressed at high levels in Sertoli and germ cells. HDACs must somehow change qualitatively or quantitatively during spermyogenesis. HDAC3 is an essential component for the coordination of histone modification profiles to regulate specific gene expression profiles. In addition to histone targets, HDAC3 can deacetylate other proteins and regulate their localization and activity. The aim of this study was to examine the association of HDAC3 rs2547547gene variety with male infertility.

Methods: Blood samples were collected from infertile men and healthy controls and were analyzed by using PCR-RFLP method.

Result: Allele and genotype distribution did not differ significantly between patients and controls (P=0.72).

Conclusion: In conclusion, the results of this study indicate that SNP HDAC3 rs2547547gene may not be associated with male infertility in this population. However, more studies should be considered with larger number of patients and control for clarifying the results.

Keywords: Male infertility, Polymorphism, Spermatogenesis, HDAC3

P85: The effects of astaxanthin and selenium on sperm quality and quantity after freezing and thawing procedures in male rats

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Background: A number of studies have found that increased antioxidant intake is linked to improved sperm quality. The aim of this study was to determine the effects of the addition of the antioxidants of astaxanthin and selenium to freezing media on the post-thawing sperm characteristics, including motility, morphology, viability and Ultimately, DNA damage.

Methods: Each sample was divided into three groups: 5mg/mL of selenium was added to one of groups and 1 micro molar of astaxanthin was added to diluted sperm in another group and also the third group without astaxanthin and selenium was considered as control.

Result: The results showed that sperm motility in astaxanthin -treated samples was higher compared to selenium -treated samples ($P < 0.05$). DNA damage percentage in astaxanthin -treated samples compared to selenium -treated samples showed no difference ($P > 0.05$) but in both treated sperm samples, DNA damaged percentage decreased compared to untreated ones ($P < 0.05$). Moreover, the effect of astaxanthin on morphology of sperms was higher than selenium samples after thawing procedure. Normal morphology percentage in astaxanthin- treated samples was significantly higher than both selenium and untreated samples after thawing ($P < 0.001$). In the treated samples, a higher number of sperms with normal morphology compared to untreated samples ($P < 0.001$) was observed.

Conclusion: Based on our results, it is concluded that astaxanthin addition during freezing resulted in positive effects on sperm parameters after thawing in adult rats.

Keywords: Astaxanthin , Selenium , Sperm quality , Sperm quantity

P86: Effects of crataegus aronia hydro-alcoholic extract on antioxidant machinery in hypercholesterolemic rats ovary

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Background: Increased plasma cholesterol is known to cause ovarian damages through oxidative stress (OS) induction. The main goal of current study was to determine the effects of hydro-alcoholic extract of crataegus aronia (HECA) as a potent antioxidant on oxidant/antioxidant status in hypercholesterolemic rats ovary.

Methods: In this experimental study, 24 female Wistar rats were randomly assigned into 4 equal groups including: control, HECA (200 mg/kg/day), diet-induced hypercholesterolemia (DIH) and DIH + HECA groups. After 30 days, ovaries were quickly removed following euthanasia in order to analyze the malondialdehyde (MDA) level and catalase (CAT) enzyme activity in all experimental groups.

Result: Hypercholesterolemia resulted in a significant reduction in CAT activity with an increase in MDA level in the rat ovaries. Interestingly, HECA co-treatment significantly restored above-noted values compared to DIH group.

Conclusion: The results suggest that HECA can play a protective role against OS-evoked ovarian damages in hypercholesterolemic rats.

Keywords: Antioxidant defense system, Hypercholesterolemia, Ovary, Rat, Crataegus aronia

P87: Hydro-alcoholic extract of Crataegus aronia improves uterine histophatological changes of hypercholesterolemic rats

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Background: Hypercholesterolemia is the presence of high levels of cholesterol in the blood. The diet-induced hypercholesterolemia (DIH) has detrimental effects including plasma lipid profile abnormality, non-alcoholic fatty liver disease and vascular dysfunction. Crataegus aronia has been demonstrated to have hypocholesterolemic effects and was traditionally used to treat cardiovascular diseases. The purpose of present study was to evaluate the effects of hydro-alcoholic extract of Crataegus aronia (HECA) on uterus in hypercholesterolemic rats.

Methods: In this study, female Wistar rats were randomly divided into 4 equal groups including: control, HECA (200 mg/kg/day), DIH and DIH + HECA groups. Uterine histology was examined in all experimental groups after 30 days. Reductions in the number of endometrial glands and thickness of endometrium as well as endometrial glands destruction were observed in DIH group, while in DIH + HECA group above-mentioned alterations were significantly improved compared to DIH group.

Result: Reductions in the number of endometrial glands and thickness of endometrium as well as endometrial glands destruction were observed in DIH group, while in DIH + HECA group above-mentioned alterations were significantly improved compared to DIH group.

Conclusion: Our findings revealed that HECA can protect uterus against hypercholesterolemia associated degenerative changes in rats.

Keywords: Histology, Hypercholesterolemia, Rat, Uterus, Crataegus aronia

P88: In vitro cytotoxicity of gold nanorods on viability of mouse acute lymphoblastic leukemia and Spermatogonial stem cells

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Background: Testicular cancer has one of the highest cure rates of all cancers. The biomedical applications of nanoparticles (NPs) in biological imaging, drug delivery, photothermal therapy have been demonstrated. Gold nanorods (GNRs) as new biomedical tools are the focus of research due to their ease of synthesis, chemical stability, and unique optical properties. The purpose of this study was to evaluate in vitro cytotoxicity of GNRs on the viability of SSCs and mouse acute lymphoblastic leukemia (EL4).

Methods: We isolated SSCs from the 3–6-day-old mice, following enzymatic digestions and purification steps. Also, we provided EL4 cells from Pasteur Institute. We used multiple doses of GNRs that consisted of 50, 75, 100, 125 and 140 µM of GNRs. To determine the toxicity, we performed MTT assay. To confirm the identity of the El4 and SSCs, flow cytometry was used. Differences between groups were assessed by One-way ANOVA using the SPSS version 16.0 software.

Result: The results of flow cytometry show that SSCs and EL4 cells were respectively PLZF and H-2kb positive. The percentage cytotoxicity of SSCs and EL4 cells that were treated with 50, 75, 100, 125 and 140 µM of GNRs was respectively 40.6±1.1%, 44.8±1.3%, 51.2±2.1%, 70.6±1.9%, 85.6±2.07% for SSCs and also 45.8±1.4%, 60.6±1.5%, 86.4±2.07%, 91.8±1.9% and 95.4±1.5% for EL4 cells. We observed that cell death of GNRs increased with an increase in the quantity of GNRs.

Conclusion: The results show that the optimal mean dose for highest cell death in EL4 cells and lowest in SSCs is 100 µM of GNRs.

Keywords: Cytotoxicity, Mouse acute lymphoblastic leukemia (EL4), Spermatogonial stem cells (SSCs), Gold nanorods (GNRs)

P89: Antioxidant activity and protective effects of G. glabra L. extract against ethanol induced testicular damages

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Background: Ethanol with inducing oxidative stress causes tissue damages. Old studies showed that plant extracts could have protective effect against these damages. Phenolic acids, particularly flavonoids, are a large group of organic compounds in plants that showed important biological activities such as antioxidant properties. The aim of this study was to investigate antioxidant and protective activities of extract of G. glabra against ethanol induced testicular damages.

Methods: Twenty male Wistar albino rats were divided into three groups as follows: Group 1 (control group: received only saline), Group 2 (ethanol group: was treated with only ethanol) and Group 3 (ethanol + G. glabra). Experimental period in all groups were two weeks. Water, ethanol and G. glabra extract was administered daily by gavage. At the end of experiments, all the animals were killed and testes were removed for histological and biochemical analyses.

Result: Results indicated that G. glabra extract had high total phenolic (6.84 ± 1.03 mg GAE/g of dry extract) and flavonoid (1.64 ± 0.37 mg QE/g of dry extract) contents. The extracts studied possess strong antioxidant activity (IC50= 0.112 ± 0.006 mg/ml) and are more active than ascorbic acid (IC50; 0.142 ± 0.002 mg/ml) as control. Also, ethanol administration caused increase in H2O2 and malon dealdehyde (MDA) level and then following decrease in body and reproductive organ weights, sperm counts and also total protein and SOD enzyme activity compared to control group. However, administration of ethanol together with G. glabra resulted in significant improvements in body and organ weights, sperm counts, SOD activity and MDA level compared to ethanol group.

Conclusion: The results of this study suggest that G. glabra extract has protective effect against ethanol induced testicular damages.

Keywords: Antioxidant, Ethanol, Phenol, Glyccrihiza glabra

P90: Protective effects of Arctium lappa against ethanol induced testicular damages

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Background: Ethanol consumption has adverse effects on testis. Studies show that oxidative stress has important role in pathological effects of ethanol. Various herbal products have anti-oxidative effects. So, we can use these products in treatment of oxidative damages. Arctium lappa has anti-infllammatory and free radical-scavenging activities. In this study, we aimed to examine protective effect of Arctium lappa extract, against ethanol induced testicular damage.

Methods: Twenty male Wistar albino rats were divided into three groups as follows: Group 1 (control group: received only saline), Group 2 (ethanol group: was treated with only ethanol) and Group 3 (ethanol + Arctium lappa). Experimental period in all groups were two weeks. Water, ethanol and Arctium lappa extract was administered daily by gavage. At the end of experiments, all the animals were killed and testes were removed for histological and biochemical analyses.

Result: Ethanol administration caused increase in H2O2 and malon dealdehyde (MDA) level and then following decrease in body and reproductive organ weights, sperm counts, total protein and SOD enzyme activity compared to control group. However, administration of ethanol together with Arctium lappa resulted in significant improvements in body and organ weights, sperm counts, SOD activity and MDA level compared to ethanol group.

Conclusion: The results of this study suggest that Arctium lappa extract has protective effect against ethanol induced testicular damages.

Keywords: Ethanol, Rat, Sperm count, Testis, Arctium lappa

P91: Histological evaluation of testis in male mice following torsion-detorsion of testis by mesenchymal cells and crocin

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Background: In this study, the effect of mesenchymal cells (MSCs) and crocin (Cr) on the histological structure of testes following torsion-detorsion were evaluated.

Methods: MSCs were isolated from bone marrow of the mice. 24 male mice were randomly divided into 4 groups and torsion-detorsion (TD) was performed at 720 degrees' counter clock wise for half an hour in all

groups, and injection of MSCs was performed in rete-testis. 1- Control group (C): In this group PBS was injected in left testes. 2- MSCs group: MSCs (5×105 in 10µL) was injected into the left testis. 3- Cr group: All mice received Cr 200mg/kg (IP). 4- MSCs+Cr group: All mice received MSCs along with Crocin. After 35 days, the testis of the mice was removed and fixed in a 10% buffered formalin and after tissue processing, paraffin sections were stained with H&E for histological investigations.

Result: The results showed that the mean number of active Sertoli cells and Leydig cells in group MSCs + Cr was significantly increased in comparison to other groups (P

Conclusion: This histomorphometric study showed that the MSCs along with Cr were more effective in amelioration of testicular torsion damage.

Keywords: Crocin, Mice, Torsion, Mesenchym

P92: Sesame ameliorates the damage of testes induced by diabetic adult rats

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Background: Diabetes has been associated with deleterious effects on testicular tissue of both men and women. The purpose of this study was to investigate the protective effects of sesame on the histomorphometrical testis in diabetic rats.

Methods: 30 adult male rats were randomly divided into 3 groups. Control group received normal saline (0.1 mL, IP, daily), control diabetic group received 65 mg/kg (IP, daily) streptozotocin (STZ) and experimental groups along with 65 mg/kg (IP, daily) received sesame 200mg/kg (IP, daily). At the end, the testicular samples also were used for histomorphometric study.

Result: The mean number of spermatocytes and leydig cells were increased significantly in sesame group compared with the other groups.

Conclusion: The present study revealed that sesame, ameliorates side effects on testis in diabetic rats.

Keywords: Rat, Sesame , Testis, Diabet

P93: Serum magnesium levels in polycystic ovary syndrome (PCOS) patients with insulin resistance

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Background: PCOS is an endocrine-metabolic disorder affecting about 7-10% women of reproductive age worldwide. Insulin resistance (IR) has been found in up to 70% of PCOS women. Magnesium deficiency is associated with the presence of diabetes mellitus type 2 and other components of the metabolic syndrome. This study primarily focused on the investigation of serum magnesium levels as well as its relation with insulin resistance in PCOS patients.

Methods: In this case control study -approved by the Ethical Committee of Babol University of Medical Science- 60 cases with PCOS attending the Fatemeh Zahra Infertility and Reproductive Center, Babol, Iran along with 90 healthy age- and body mass index (BMI)- matched controls were included. PCOS group were further divided into two subgroups (IR: n=36; NIR: n=24). Serum Magnesium levels, FBS and fasting insulin were measured in both groups. Insulin resistance was assessed using Quantitative Insulin

Sensitivity Check Index (QUICKI) and Homeostasis Model Assessment (HOMA-IR) indexes. Statistical analyses were done using SPSS version 16.

Result: There was not statistically significant differences between magnesium levels in two groups. In PCOS-IR, Magnesium levels were inversely correlated with HOMA-IR (r=-0.449, p=0.006) and FBS (r=-0.509, p=0.002) and directly correlated with QUICKI (r=0.480, p=0.003).

Conclusion: The findings confirm the association between serum magnesium levels and insulin resistance.

Keywords: HOMA-IR, Insulin resistance, Magnesium, QUICKI, PCOS

P94: Comparison between reactive oxygen species levels and antioxidant capacity of follicular fluid from polycystic ovary syndrome and healthy women undergoing assisted reproductive techniques

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Background: Polycystic ovary syndrome (PCOS) is a multifaceted disorder with a pathogenic pathway that is not completely understood yet. Apart from hormonal derangements, changes in antioxidants enzymes activity and oxidative stress may be having a role in this syndrome complications. Therefore, in this study, we investigated follicular fluid (FF) reactive oxygen species (ROS) levels and activities of superoxide dismutase (SOD) and glutathione peroxidase (GSH-Px) in PCOS and healthy women.

Methods: Twenty women with PCOS were compared with regard to follicular fluid oxidant and antioxidant status with 20 age- and body mass index (BMI)-matched healthy controls. Freshly follicular fluid aspirated from dominant follicles on the day of oocyte retrieval. ROS levels were evaluated by Luminol-based enhanced Chemiluminescence assay and were represented in relative light unit (RLU). GSH-Px and SOD activities (IU/mL) were measured by specific colorimetric methods. In this study, the comparison between the means of two unrelated groups was undertaken using independent t-test. All statistical analysis performed using SPSS software v. 24.0.

Result: RLU in FF of PCOS women was higher than normal(514.12±88.69 vs. 117.14±13.22). Also, SOD activity and GSH-Px activity were lower than the controls significantly (1.62±0.05 vs. 1.73±0.02 and 28.82±4.75 vs. 51.48±12.01 respectively).

Conclusion: Although underlying mechanisms have not been fully explicated yet, it becomes evident that oxidative stress holds a significant role in the pathogenesis of PCOS. In fact, PCOS can be considered as a purely oxidative state, where the body antioxidants cannot scavenge the excessive production of free radicals.

Keywords: Follicular fluid, Glutathione peroxidase, Reactive oxygen species, Superoxide dismutase, Polycystic ovary syndrome

P95: Evaluation of early apoptosis marker and DNA fragmentation in spermatozoa of infertile men with varicocele

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Background: The most common reason of infertility due to male factors is varicocele. Varicocele is defined as a palpable elongated, dilated and tortuous testicular pampiniform plexus of veins in the spermatic cord.

Although it is not clear that how exactly varicocele causes infertility, spermatogenesis defect because of disruption of testicular thermoregulation and increase in reactive oxygen species (ROS) is proposed to be the main explanation. It is shown that heat stress and oxidative stress can initiate programmed cell death known as apoptosis. Therefore, the aim of this study was to compare sperm apoptotic markers (externalization of phosphatidylserine (EPS) and DNA fragmentation) between infertile men with varicocele and fertile individuals.

Methods: Sperm concentration, motility and morphology were assessed according to World Health Organization (WHO) 2010 guidelines in semen samples of 10 infertile men with varicocele and 10 fertile individuals. Sperm EPS and DNA fragmentation were assessed using Annexin V kit and Terminal deoxynucleotidyl transferase dUTP nick end labeling (TUNEL) stained by flow cytometry and florescent microscopy techniques, respectively. For data analysis, independent T- test statistics analysis was performed between two groups.

Result: No significant difference was observed in level of EPS between two groups. However, sperm concentration, motility, and percentage of spermatozoa with normal morphology were significantly lower, while percentage of sperm with fragmented DNA was significantly higher in infertile men with varicocele compared to fertile individuals.

Conclusion: Apoptosis is active in testis of men with varicocele and this phenomenon can disturb spermatogenesis process. Therefore, it may be concluded that the observed decreased sperm parameters is due to activity of apoptosis.

Keywords: Apoptosis, DNA fragmentation, Externalization of phosphatidylserine, Sperm parameters, Varicocele

P96: The effect of equine Chorionic Gonadotropin on in vitro calf spermatogonial stem cell culture

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Background: The complex process of spermatogenesis is regulated by various factors. Studies on spermatogonial stem cells (SCCs) have provided very important tool to improve herd genetic and different field. 0.2 to 0.3 percent of total cells of seminiferous tubules consist of spermatogonial stem cells. To investigate the biomanipulation of these cells, proliferation and viability rate of cells should be increased in vitro, at first. Equine chorionic gonadotropin (eCG) has been suggested to play a determinant role in the survival of germ cells in addition to increasing spermatogonial proliferation.

Methods: In this study, the in vitro effects of eCG on spermatogonial cell colony formation were investigated. Sertoli and spermatogonial cells were isolated from 3-5 months old calves. The identity of the Sertoli cells and spermatogonial stem cells were confirmed through immunocytochemistry and colony morphology, respectively. Co-cultured Sertoli and spermatogonial cells were treated with eCG in different doses of 2, 5 and 10 IU mL-1 eCG, before colony assay.

Result: Results indicated that, eCG increased in vitro colonization and prolifrationof spermatogonial cells in comparison with control group.

Conclusion: In conclusion, using eCG provided proper bovine spermatogonial stem cell culture medium for in vitro study of these cells.

Keywords: eCG, Sertoli cell, Bovine spermatogonial stem cell

P97: The effect of Xenical on the spermatogenesis index in hyperlipidemic male rats

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Background: Xenical administration led to significant decreases in lipid plasma levels in hyperlipidemic patients. The aim of this study was to investigate the effect of Xenical by oral administration on spermatogenesis indexes in the testis of adult hyperlipidemic male rats.

Methods: In this experimental study, 24 adult male wistar rats were allocated to 4 groups: control group received normal diet, control sham group received Xenical, hyperchlostromic group (administrated 0.1 ml/kg sweet almond oil,2nd group administrated 0.1ml/kg sweet almond oil plus 1ml/kg Xenical) by oral rout for 48 days. At the end, the testis tissue was sampled after passing above time and section providing, was stained by H&E. Histological and spermatogenesis indexes which included tubular differentiation index (TDI) and spermiogenesis index (SI) were studied. Data were analyzed by ANOVA at the significant level of P

Result: This study showed that in hyperchlostromic rat, SI and TDI significantly decreased in comparison to control, while in treated groups with Xenical this parameter was improved. Also, administration of Xenicalin sham group significantly decreased rate of TDI and SI in comparison to control.

Conclusion: According to the results, it seems that Xenical alone and hyperchlostromia cause reduction of spermatogenesis and its indexes in rat testis tissue, probably due to reducing cell dividing.

Keywords: Testis, Xenical, Hyperchlostromia

P98: Effect of infertility on the female sexual function

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Background: Infertility is a complex issue that affects individuals and couples, and also it has serious implication for the marital and sexual relationship of those involved. The aim of this review was to assess female sexual dysfunction in the context of infertility.

Methods: This is a review article in which the impact of infertility on female sexual dysfunction was studied. The data was collected from PubMed, Scopus, Iranian Journal Database, Scientific Information Database (SID) databases by searching related literature published from 2006 to 2016, by keyword such as infertility , female sexual dysfunction , sexual satisfaction, and sexual relationship.

Result: In review, articles were selected, which were focused on the impact of infertility on sexual function. Most of the results recommended that infertility and its treatment can disrupt sexual function at infertile women.

Conclusion: The result suggests that infertile women experience more problems. More researches needs to be done in the field of relationship of the sexual behavior and sexual relationship in infertile couples.

Keywords: Female sexual dysfunction, Sexual relationship, Sexual satisfaction, Infertility

P99: The rate of DNA damage in induced hyperchlostrolemic male rat treated with anethum graveolens seed extract (AGSE)

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Background: The aim of the present study was to evaluste the effect of AGSE on the rate of DNA damage in hyperchlostrolemic male rats.

Methods: In this experimental study, twenty-four 170±5gr male Wistar rats were allocated to four groups of 6: Control group having a normal diet, hyperghlostromic group (1th group administrated 0.1mg/kg BW sweet almond oil plus cholestrol, 2nd group administrated 0.1mg/kg BW sweet almond oil plus cholesterol plus 500mg/kg extract anethum graveolens seeds), sham group having 500mg/kg BW extract anethum graveolens seeds by oral rout for 48 days. At the end of treatment, rats euthanization,cauda epididymis was used to collect sperm and rate of DNA

damage was examined by Acridine orange staining. Data were analyzed with spss and one way ANOVA.

Result: The results showed that DNA damage rate decreased significantly (p

Conclusion: Our results suggested that AGSE may improve DNA damage on hyperchlostromic rat.It can be concluded that AGSE can be considered as a therapeutic strategy to improve high-fat diet effect in DNA damage of male hyperchlostromic rat.

Keywords: DNA damage, Hyperchlostrolemia, Anethum graveolen

P100: Using logistic regression to investigate the factors influencing infertile women

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Background: Infertility is a major and prevalent health problem influencing different aspects of couple life, especially that of women. Sexual dysfunction is the silent partner of infertility. Accordingly, a study was conducted in 2013 to investigate the factors influencing the sexual function of infertile women in Mashhad.

Methods: This is a retrospective cohort study conducted on 85 infertile women visiting governmental Infertility Clinic and Research Center in Mashhad. The convenience sampling method was used in this study. The research tools included a demographic and infertility information form, a sexual self-efficacy questionnaire based on Schwarzer's General Self-Efficacy Scale, Female Sexual Function Index (FSFI), and ENRICH (Evaluation and Nurturing Relationship Issues, Communication and Happiness) Marital Satisfaction Scale. The descriptive-analytical statistical tests and the logistic regression method were used to analyze data. The type I errors were considered 5%, and the lower possible values were regarded as statistically significant.

Result: The mean age of all women was 31.18±5.56 years old, and the majority of them (32%) were aged between 26 and 30 years old. The majority of participants (36.7%) had higher educations, and 60% of them were housewives. Most of their husbands (49.4%) were self-employed. The mean period of infertility awareness was 6.02±4.47 years, and the mean period of infertility treatment was 4.11±4.46 years. Based on the logistic regression model, the following variables influenced the sexual function of infertile women: sexual self-efficacy, sexual satisfaction, marital satisfaction, the educational attainments of both wife and husband, income, couple satisfaction with spouse appearance, and the high costs of infertility treatment.

Conclusion: Identifying the factors influencing the sexual function of infertile women can help make necessary plans and interventions to improve sexual health in these women.

Keywords: Infertile women, Sexual function , Logistic regression

P101: The results of pregnancies after family balancing by pre implantation genetic screening and its relation with couple's age

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Background: Social utilization of pre-implantation genetic screening (PGS), for family balancing, is increasing, therefore it is necessary to follow-up the health and outcome of fertilization and newborn's birth followed PGS. The aim of this study was to evaluate the outcome of fertilization after family balancing by PGS and the relation between age of parents and clinical outcome.

Methods: This was a retrospective descriptive correlative study conducted on 218 couples in Isfahan.

Samples were selected through convenience sampling. The rate of chemical and clinical pregnancy and abortion, frequency of success in achieving desired sex, and mean of gestational age and weight of newborns were gathered through reviewing medical files and phone interviews. Data was analyzed using independent t test and pearson correlation test.

Result: Rate of chemical and clinical pregnancy was 30.7% and 30.3% respectively, the rate of abortion was 26.9%, the frequency of success in achieving the desired sex was 100%, and mean of gestational age and weight of newborns was 3260 (616) kg and 37.7 (2.07) weeks respectively. There was no significant relation between the age of parents and rate of abortion, rate of chemical and clinical pregnancy and newborn's gestational weight. But there was a significant relation between the age of men and gestational age of newborns (P = 0.04).

Conclusion: PGS method was 100% successful in achieving the desired sex, but relatively high rate of abortion could indicate the effect of PGS on the embryo development process which was related to gender of the pervious child in the family.

Keywords: Age, Chemical pregnancy, Iran, Pre implantation genetic screening, Pregnancy, Abortion

P102: mRNA expression of TNF-α by administration of peripheral blood mononuclear cells into the uterine horn to improve pregnancy rate

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Background: Spontaneous pregnancy loss is a surprisingly common occurrence, with approximately 15% of all clinically recognized pregnancies resulting in pregnancy failure. A wide range of cytokines and their receptors are expressed in many cell lineages of the uterine and conceptus tissues in distinct spatial and temporal patterns during the menstrual cycle and pregnancy. Here we examined whether administration of autologous peripheral blood mononuclear cells (PBMCs) into the uterine horn can improve pregnancy rates following mouse embryo transfer (ET).

Methods: In this study, first we determined that the abundance of TNF-α transcript in PBMCs was greatest after 24 h of culture. PBMCs that had been cultured for 24 h were gently administered non-surgically to the uterine horn on day 4 of the estrous cycle. On day 7, the ET was carried out and the pregnancy rate in the PBMC-treated group was compared with that in the non-treated group.

Result: TNF-α transcript was expressed in mouse PBMCs, with transcript abundances after 24 h culture being approximately 200-fold higher than that in non-cultured (0 h) PBMCs. The pregnancy rate on day 60 in the PBMC-treated group was significantly higher than that in the non-treated group.

Conclusion: These results indicate that administration of autologous PBMCs into the uterine horn increases mRNA expressions TNF-α and improves pregnancy rates following mouse ET.

Keywords: Embryo transfer, Pregnancy, Peripheral blood mononuclear

P103: The effects of anethum graveolen seed hydroalcoholic extract(ASHE) on oxidative stress in testis of induced hypercholesteroleomia male rats

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Background: Hypercholesterolemia is a major risk factor for cardiovascular diseases and it is considered a wellknown herb in traditional medicine with various medicinal properties. In the present study, protective

effect of ASHE was investigated in the hypercholesterolemic male rats.

Methods: In this experimental study, twenty-four 170±5gr male Wistar rats were allocated to four groups of 6: Control group having a normal diet, experimental group receiving a high-fat diet, two experimental groups receiving high-fat diet and ASHE at maximum (500and minimum (300) mg/kg by oral rout for 48 days. At the the end of this period, all of the rats were killed and the testis were removed to the _70C for stress oxidative assessment.

Result: Lipid peroxidation products significantly decreased in testis compared with the high-cholesterol diet alone, while Catalase content and antioxidative enzymes activities were enhanced. This function can be attributed to the presence of large quantities of antioxidants in the plant and their cholesterol synthesis inhibition mechanisms.

Conclusion: These results suggest that ASHE may have a protective effect against oxidative stress, hypercholesterolemia induced by high-cholesterol diet.

Keywords: Hypercholesterolemia, Oxidative stress, Testis, Anethum graveolen

P104: Evaluation of Hypoxia-Inducible Factor1 Alpha (HIF1) in semen sample of infertile men with varicocele in comparison with fertile individuals

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Background: Varicocele is an abnormal dilation and torsion of the spermatic cord in the upper part of testis in the pampiniform network. The level hydrostatic pressure increases in these individuals and could lead to testicular ischemia, hyperthermia and under hypoxic conditions or reduced blood flow, diffusion of oxygen is reduce and this reduction may trigger activation of several molecules, like hypoxia-inducible factor-1alpha (HIF1-alpha). Accordingly, in the present study, we aimed to compare hypoxia marker (HIF-1) between infertile men with varicocele and fertile individuals.

Methods: Semen samples were collected from 20 men with primary infertility enduring grade II or III varicocele upon palpation which was confirmed by Doppler duplex ultrasound and 20 fertile men. Sperm parameters were assessed according to World Health Organization (WHO) 2010 guidelines. For assessment of HIF1alpha, RNA extraction and cDNA synthesis was carried out for Real -Time PCR.

Result: Significant differences were observed between fertile and infertile men with varicocele for sperm parameters. Expression of HIF-1alpha was significantly higher in infertile men with varicocele compared to fertile individuals.

Conclusion: The results of this study, for the first time, indicate that level of HIF-1 alpha was higher in infertile men with varicocele due to pathogenic conditions in these individuals. However, further studies are needed for confirming this result in the larger population.

Keywords: Hypoxia, Varicocele, Infertile men

P105: Effect of vitamin D on the level of sperm-specific glyceraldehyde 3-phosphate dehydrogenase (GAPDS) and heat shock protein 70 (HSP70) in human sperm

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Background: Some studies indicated that vitamin D is involved in many functions of the reproductive system. In addition, researches have reported a positive correlation of vitamin D concentrations with semen quality, but the specific mechanisms of vitamin D are not elucidated. Since GAPDS and HSP70 are effective in semen quality, this study evaluated the effect of vitamin D on the level of GAPDS and HSP70 in human sperm.

Methods: The study was carried out on semen of 8 fertile men who referred to IVF clinic of Imam hospital in Ahvaz Jundishapour University of Medical School. Samples were processed for swimming up. Supernatant was divided into two groups, one as control and another one had received 100 microliter of vitamin D as experimental group for 1 hour ,then the level of GAPDS and HSP70 proteins were evaluated by western blotting and immunocytochemistry. The SPSS 23 program was used for statistical analysis.

Result: The immunocytochemistry results revealed that the amount of GAPDS and HSP70 protein were significantly higher in treated group with vitamin D. About GAPDS, number of high staining density cells are 50.88±6.64 in treated group and 26.00±3.89 in control group (P-value=0.01) and low staining densities were 39.75±5.28 and 58.38±4.47 (P-value=0.01) in treated and control group, respectively . About HSP70, high staining density cells were in treated group 47.13±10.60 versus 29.25±10.19 in control group with P-value=0.03 and low staining density were in treated 42.62±7.90 and in control group 55.13±6.87 (P-value=0.03). At now, the result of western blotting showed that these proteins are higher in treated group but the experiment is not yet over.

Conclusion: According to data, the level of GAPDS and HSP70 increased after incubation with vitamin D so, maybe this vitamin can improve sperm quality by GAPDS and HSP70 proteins.

Keywords: GAPDS, HSP70, Sperm quality, Vitamin D

P106: Evaluation the expression of genes related to angiogenesis after vitrified ovarian tissue

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Background: Many attempts were done for the preservation of fertility in cancer patients by improvement of ovarian tissue vitrification and transplantation. This study investigated the effect of direct cover vitrification (DCV) on the expression of angiogenic factors in vitrified ovarian tissue grafts.

Methods: All phases of current experiment were in accordance to published guideline of "The Care and Use of Laboratory Animals [NIH Publication No. 85-23, revised 1996] and approved by the local ethical committee of Tabriz University of Medical Sciences. Ovarian tissue was dissected from 6 to 8-week-old female Balb/c mice under anesthesia and the right ovaries immediately washed in α-MEM and left ovaries vitrified/thawed by direct cover vitrification (DCV2 and DCV3) cryoprotectant. Then ovaries were autotransplanted subcutaneously. After 7 days, tissues were dissected and assessed for expression of angiogenic factors such as vascular endothelial growth factor (VEGF) and angiopoietin-2 (Ang-2) by real-time PCR.

Result: We demonstrated for the first time the expression of VEGF and Ang2 in cryopreserved ovarian tissue graft by direct cover vitrification. In vitrified/grafted ovarian tissues, we observed the highest expression of VEGF and Ang-2 was observed in as the DCV2 group than DCV3 group.

Conclusion: These findings suggest that DCV2 is a more efficient vitrification solution for expression of angiogenic factors after ovarian tissue transplantation. However, further investigations are necessary to optimize vitrification technique in order to improve revascularization in the early stage of transplantation.

Keywords: Ang-2, Real-time PCR, VEGF, Angiogenesis, Vitrification

P107: The effect of copper oxide nanoparticles on the expression of TSPY genes affecting rats' testicular tissue

ISERB 2017
The 3rd International Congress on Reproduction
Abstracts

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Background: Considering the increasing use of nanoparticles in recent years, there are wide spread concerns about the potential risks of nanoparticles containing the chemical release into the environment, including environmental toxicity, cytotoxicity, infertility and cancer. TSPY gene is expressed in testicular, and its proteins is involved in spermatogenesis. This gene seems to determine the spermatogenesis time, by sending signals to spermatogonia to enter meiosis. This study was conducted to evaluate the effect of copper oxide nanoparticles on TSPY gene expression in testis and its impact on the fertility.

Methods: In this experimental study, the number of 15 adult male rats of the Wistar, in three treatment groups, received intraperitoneal injection copper oxide (CuO) with a size of 60-20 nm, purity 99, concentration of 0/75 mg / ml, 0/5, 0/25 for 14 days. Similarly, the control group received normal saline injection. After deep anesthesia, the rats were autopsied. And to extract RNA, 100 mg was removed from testicular tissue, and RNA extraction (by Protocol kit Iran, Molecular Biology Products Denazist Asia) and cDNA synthesis (By Kit Fermentas) was performed. Ultimately, the amount of change in gene expression was examined by PCR real time techniques.

Result: The results of real time PCR showed a significant decrease in gene expression of treatment groups compared to the control group.

Conclusion: The findings of this study showed that, the copper oxide nanoparticles can reduce the expression of genes which are associated with male fertility.

Keywords: Gene, Nanoparticles, Rat, Testicle

P108: Crocus sativus L. alleviates Cadmium-induced toxicity on spermatogenesis in rats

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Background: Cadmium is a nonessential heavy metal and ubiquitous potential environmental pollutant, which probably causes infertility by impairment in spermatogenesis. The present work aimed to study the toxic effect of cadmium on spermatogenesis in Wistar rat, as well as the protective effect of Crocus Sativus L. on cadmium intoxicated rats.

Methods: Cadmium chloride (1mg/ kg body weight) was injected intraperitoneally during 16 days at intervals of 48 h between subsequent treatments. Crocus sativus L. (100 mg/ kg b.w., IP) was pretreated in both control and cadmium-injected rats. Animals were scarified on day 17 after the first treatment. The left cauda epididymis was removed and immediately immersed into Hank's balanced salt solution for evaluation of sperm count and viability and left testis was fixed in 10% formalin for histological evaluation.

Result: Following contamination with cadmium, a decrease was observed in the number and viability of cauda epididymis sperm, which were increased by Crocus Sativus L. pr etreatment. In addition, cadmium decreased both cell proliferation and Johnsen scores in the seminiferous tubules, which were reversed by Crocus Sativus pretreatment. Furthermore, cadmium-induced decrease in the amount of free serum testosterone as well as an increase in lipid peroxidation (LPO) activity in the testicular tissue were reversed by Crocus Sativus L.

Conclusion: These findings may support the concept that Crocus Sativus L. can improve the cadmium toxicity on spermatogenesis.

Keywords: Cadmium toxicity, Rat, Spermatogenesis, Crocus sativus L.

P109: The evaluation of LAP in women with polycystic ovarian syndrome

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Background: Polycystic ovarian syndrome (PCOS) is one of the most prevalent heterogenic endocrine disorders with complex pathogenesis among women in reproductive age. Like insulin resistance, PCOS is regarded as a metabolic disorder and is one of the independent risk factors of some other metabolic disorders including dyslipidemia, defective glucose tolerance, rising in blood pressure, cardiovascular disease and metabolic syndrome. Noting that hyperinsulinemic-euglycemic Calmap gold standard method is complex and is not cost benefit and regarding that fasting insulin levels has not any reference intervals and is determined incorrectly, it has been necessary to use some insulin resistance indexes that are facile to detect, such as WC, BMI and LAP. The accurate evaluation of lipid accumulation product (LAP), HOMA-IR, WHR, WC are considered among biomarker of insulin resistance. The aim of this study was to assess the above indices in women with polycystic ovarian syndrome (PCOS).

Methods: In this case control study , Antropometrics, biochemical parameters, LAP, and insulin resistance in 43 women suffering from PCOS as case and 40 healthy women as control were measured. LAP was defined as {WC(cm)-58, TG(mmmol/L)}. PCOS was diagnosed according to Roterdam standard. Insulin resistance was defined based on HOMA-IR. Statistical analysis was used to compare the WHR, WC, LAP, BMI . ROS curve was used to assess the insulin resistance.

Result: The mean age, BMI, WHR among PCOS women were 24.06±5.86, 26.61±4.34 and 0.81±0.061. LAP index was 47.13±4.13.There was a direct significant correlation among HOMA-IR with WC,BMI, and LAP among women with PCOS.

Conclusion: WC, BMI, LAP are among accurate and key indices in diagnosing insulin resistance among PCOS women, respectively. Although good relationship was between HOMA-IR and Calamp gold standard method in the present study, it is possible that this relationship is not significant among people with PCOS. We concluded that WC, BMI and LAP are indexes with facile detection and high accuracy that may be useful to monitor insulin resistance among women with PCOS. Future studies will use these indexes as factors to detect diabetes, as a marker of metabolic syndrome and to predict cardiovascular disease and mortality in comparison to other obesity indexes.

Keywords: HOMA-IR, LAP, WC, WHR , BMI, Polycystic ovarian syndrome

P110: Effect of human chorionic gonadotropin on colony formation of bovine spermatogonial stem cell

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Background: The complex process of spermatogenesis is regulated by various factors. Studies on spermatogonial stem cells (SCCs) have provided very important tool to improve herd genetic and different field. 0.2 to 0.3 percent of total cells of seminiferous tubules consist of spermatogonial stem cells.

Methods: To investigate and biomanipulation of these cells, proliferation and viability rate of cells should be increased in vitro, at first. Human chorionic gonadotropin (hCG) has been suggested to play a determinant role to increase spermatogenesis in cow. The identity of the Sertoli cells and spermatogonial stem cells were confirmed through immunocytochemistry and colony morphology, respectively. Co-cultured Sertoli and spermatogonial cells were treated with hCG in different doses of 2, 5 and 10 IU mL-1 hCG, before colony assay. In this study, the in vitro effects of hCG on spermatogonial cell colony formation were investigated. Sertoli and spermatogonial cells were isolated from 3-5 months old calves.

Result: hCG increased in vitro proliferation of spermatogonial cells in comparison with control group.

Conclusion: Using hCG provided proper bovine spermatogonial stem cell culture medium for long time in in vitro study of these cells.

Keywords: Human chorionic gonadotropin, Sertoli cells, Bovine spermatogonial stem cells

P111: Effect of NOX5 activity on human sperm viability and motility

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Background: The presence of NADPH oxidase 5 (NOX5) on human sperm was shown. Protein kinase C (PKC) activates this enzyme and increases reactive oxygen species (ROS) production. PMA as PKC activator and DPI (NOX inhibitor) were used to understand the role and importance of NOX5 in sperm ROS generation, motility and viability.

Methods: Normal semen samples (n=20) were washed and divided into four groups; control, solvent (DMSO), PMA (100nM), and DPI (1µM). After 30 minutes incubation, sperm motility was analyzed by VT SPERM 3.1 and the viability was assessed by Eosin staining. ROS assessment was done by chemiluminescence method during 30 min.

Result: Our results showed a significant decrease in motility and viability in PMA group compared with 3 other groups. The amount of ROS production was increased in PMA group and decreased when NOX5 activity was inhibited by DPI. ($P < 0.05$)

Conclusion: It has been shown that activation of PKC caused sperm hyperactivation, but we showed that 30 minutes exposure of sperm to PMA, had a reverse effect which may be because of NOX5 activation and excess ROS production. According to reduction of ROS production after exposure to DPI, and the importance of low level of ROS in sperm normal function, we concluded that NOX5 is important in normal human sperm physiology.

Keywords: NOX5, PKC, Human sperm

P112: Level of blood glucose and insulin resistance in premenstrual syndrome

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Background: Premenstrual syndrome (PMS) is suspected to be the result of dysregulation of the serotonergic system. Serotonin not only regulates glucose and estradiol levels but also affects insulin resistance and blood glucose levels, and it can stimulate or intensify PMS symptoms. According to this, we compared the blood glucose levels, insulin concentrations, and insulin resistance during the two phases of the menstrual cycle between healthy women and patients with (PMS).

Methods: From January of 2014 to the August of 2015, a descriptive cross-sectional study was performed among students in the School of Medicine of Jahrom University of Medical Sciences. We included 62 students with the most severe symptoms

of PMS and 62 age frequency-matched healthy controls. We analyzed the serum concentrations of glucose, insulin, and insulin resistance by using the glucose oxidase method, radioimmunometric assay, and homeostasis model assessment of insulin resistance equation, respectively.

Result: No significant differences between the demographic data of the control and PMS groups were observed. The mean concentrations of glucose of the two study groups were significantly different during the follicular and luteal phases (p=0.023 vs. p

Conclusion: The level of blood glucose and insulin resistance was lower during the two phases of the menstrual cycle of the PMS group than that of the controls.

Keywords: Insulin resistance, Premenstrual syndrome, Glucose

P113: The effect of vitamin D on male and female fertility disorders

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Background: We know the role of vitamin D in protecting calcium and phosphorus homeostasis and bone mineralization. Vitamin D can improve reproduction ability and modulator process of reproductive system in women and men. In healthy women, the rate of vitamin D is higher than women with polycystic ovary syndrome (PCOS) because the vitamin D receptor is placed in the endometrium , myometrium, ovarian and cervix.

Methods: In this review article, we tried to express the role of vitamin D in reproduction processes and its function in infertility therapy. We searched about key words “vitamin D, infertility, PCOS”at google scholar and pubmed.

Result: The result of this review article concerned the vitamin D role in infertility treatments and its effect of treatment in women with PCOS, uterine fibroid , infertility and in men with inefficient semen. Vitamin D deficiency can cause gonadal insufficiency, decreased sperm count and motility and abnormalities of testis, ovary, uterus and it can be a reason for PCOS. In PCOS, loss of 25-(OH)D levels can be the reason for obesity, metabolic and endocrine disorders. In addition, men with vitamin D shortage had a lesser ratio of motile, progressive motile, and morphologically common spermatozoa contrasted with men with enough vitamin D situation.

Conclusion: In the recent studies, appearing data offered that vitamin D is not the single critical factor for the retention of bone safety but also imposes multisystem regulative effects that adjusts throughout health and wellbeing. A growing body of writing offers that Vitamin D can impact reproductive actions.

Keywords: Infertility, Ovarian insufficiency, Reproductive, Semen, Vitamin D

P114: Evaluation of in vitro embryo implantation in the presence of steroid hormones

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Background: Implantation involves a fine coordination and dialogue between embryo and endometrium. It is influenced by steroid hormones, growth factors and cytokines in a paracrine manner. So the aim of this study was to evaluate the effect of

steroid hormones on the in vitro embryo implantation and related genes expression.

Methods: After confirming the normality of the human endometrial tissues, the stromal endometrial cells were isolated with collagenase type 1 and passed through 100 and 40 µm filters, respectively. Collected stromal cells were cultured in DMEM/F-12 medium to the fourth passage and then cultured for 7 days in two parts. The control group (without hormones) and experimental group were treated with 0.3 nmol/L of estrogen and 63.5 nmol/L of progesterone. The blastocysts were collected from the superovulated mice on the morning of 5th day of pregnancy. The collected embryos were transferred on the top of endometrial cultured cells in both groups on the 5th day of culture. Morphological and structural evaluation of embryo implantation and the related genes expression (αvβ3 integrin, LIFR and IL-1R) were assessed by inverted, transmission and scanning microscopy and real time RT-PCR respectively.

Result: At the morphological and ultrastructural level, the prominent difference was not seen and our observations indicated that the trophoblastic area expanded and interacted with the stromal cells. Also the presence of pinopodes-like structures and cell secretions showed the morphological and functional changes in stromal cells for embryo reception in two groups. At the molecular level, the expression of IL1-R was significantly increased in experimental group compared to the control but the αv, β3 and LIFR gene expression did not differ in these groups ($P \leq 0.05$).

Conclusion: This study showed that steroid hormones can be effective on the expression of genes related to implantation in the human endometrial stromal cells in presence of embryo.

Keywords: Endometrial stromal cell, Estrogen, Gene expression, Progesterone, In vitro implantation

P115: Review of consequences of pregnancy in women with endometriosis

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Background: Endometriosis is a chronic debilitating disease, characterized by endometrial tissue outside the uterus. It does not absolutely prevent fertilization, any possible relationship between endometriosis and pregnancy is important. This study aimed to review the consequences of pregnancy in women with endometriosis.

Methods: This review was conducted by searching the keywords such as endometriosis, pregnancy retrograde menstruation in international databases including Pubmed, Science Direct, SID and Google Scholar; 60 papers were extracted, 10 papers were removed, finally, 50 papers from 2005 to 2016 were listed and data were extracted.

Result: Pregnancy and live birth are protective factors for developing endometriosis. Menstruation does not occur during pregnancy or sometimes, lactation; therefore, some women experience fewer menstrual cycles. This may reduce the probability of retrograde menstruation and may be a protective factor for endometriosis. The results of epidemiological studies show the relationship between the endometriosis and premature birth, preeclampsia and increased caesarean delivery. In women with endometriosis compared to women without endometriosis, tubal pregnancy occurs nearly three times and abortion occurs nearly two times more; moreover, the risk of placenta previa, bleeding before childbirth with no clear cause and bleeding after birth may increase.

Conclusion: These findings indicate that patients may require special care during their pregnancy. Finally, further studies are needed on pregnancy in these patients, and for confirming the results of this project in other populations and ethnicities with larger samples.

Keywords: Endometrial, Pregnancy, Retrograde menstruation, Uterus, Endometriosis

P116: Correlation between sperm chromatin dispersion test and sex hormones in adult mice treated with acetylsalicylic acid

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Background: Acetylsalicylic acid (ASA) is a non-steroidal anti inflammatory drug, causes reproductive failure in human males or animals. The objective of this study was to evaluate correlation between sperm chromatin dispersion(SCD) test and sex hormones in adult mice treated with low doses of acetylsalicylic acid.

Methods: A total of 49 adult male mice were equally divided into seven groups. Group 1 (control) received no drug. Group 2 (sham) received vehicle. Groups 3,4,5,6 and 7 received 0.05,0.1, 0.5,1 and 5 mg/kg ASA. All animals were treated orally for 14 days. On day 15, epididymis were removed and evaluations were made by radioimmunoassay (RIA) and SCD test for study of serum testosterone or LH level and sperm's DNA fragmentation respectively.

Result: Serum LH levels were not changed in all groups, however groups 5, 6 showed significantly reduced serum testosterone levels (p

Conclusion: The results showed that ASA has deleterious effects on sperm's DNA especially in dose of 5mg/kg. There is a significant correlation between testosterone and sperm's DNA fragmentation in higher doses of ASA. These effects may be due to testosterone hormone alterations.

Keywords: Chromatin dispersion test, DNA fragmentation, Sex hormones, Acetylsalicylic acid

P117: Cycles with one retrieved oocyte; does it matter?

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Background: One of the prognostic factors in assisted reproductive technology is oocyte count. The objective was to compare the outcomes of cycles with one retrieved oocyte with normal and high responders.

Methods: Ninety-three ICSI cycles were evaluated retrospectively from 2014 to 2015. The cycles were divided into three groups as follows; group 1: the cycles with one retrieved oocyte, group 2: the cycles with 8-12 retrieved oocytes and group 3: the cycles with more than fifteen retrieved oocytes. Maternal age, etiology of infertility, controlled ovarian hyperstimulation (COH) protocol, type of infertility (primary and secondary), duration of infertility, day of embryo transfer, rates of good quality embryos, pregnancy, abortion and delivery were compared between different groups.

Result: There was no significant difference between COH protocol, duration of infertility, type of infertility, and day of embryo transfer between different groups. About 80% cases in group 1 were ovarian factor which was significantly higher compared to other groups. Maternal age also was significantly higher in group 1. The rate of good quality embryos was significantly higher in group 2 and group 3 in comparison with group 1 (P

Conclusion: Although pregnancy rate may be affected by the number of retrieved oocytes, but delivery rate seems to be similar results in comparison with the cycles with more retrieved oocyte.

Keywords: Delivery, ICSI, Poor responder, Pregnancy, Oocyte count

P118: Down-regulation of K+ ion channel coding gene (KCNQ1) in endometrium of women with recurrent implantation failure

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Background: Endometrium is receptive to the embryo only during a defined period in the menstrual cycle called the window of implantation. Pattern of genes expression leads to receptive or non-receptive endometrium, in this phase. Many ion channels were found to be involved in this process. It was demonstrated that the relatively high concentration of K+ in intrauterine fluid is required for the viability and fertilizing capacity of spermatozoa. Therefore, K+ concentration in uterine cavity and K+ activity in endometrium have major role in embryo implantation. KCNQ1 gene encodes a voltage-gated potassium channel in epithelium of many organs such as endometrium and is hypothesized that have functional role in implantation. The aim of this study was to compare expression of KCNQ1 in endometrium of RIF patients vs. fertile women.

Methods: Endometrial samples obtained from 22-35 year old women through window of implantation by pipelle including 20 infertile patients with recurrent implantation failure (RIF) and 9 volunteer fertile donors, one cycle before ovarian stimulation as control group. Expression of KCNQ1 in endometrial samples of fertile and RIF women were evaluated quantitatively by real-time PCR. Data were analyzed by Independent-Samples T test followed by Tukey's test using SPSS version 22 software.

Result: The data showed a significant decrease in mRNA expression of KCNQ1 gene in endometrium of RIF patients vs. fertile group. (pValue≤0.01)

Conclusion: These data revealed association between the gene expression of ion channels and embryo implantation and suggest the low density of K+ may enhance the cleavage rate of preimplantation embryos.

Keywords: Embryo implantation, Ion channel, KCNQ1, Window of implantation, Recurrent implantation failure

P119: The effect of troxerutin administration during pubertal period on total volume of germinal epithelium of seminiferous tubules in type I diabetic rats

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Background: Basal generation of ROS is essential for male reproductive function and identify as an independent biomarker of male infertility in diabetic patients. Troxerutin or vitamin P4 is a flavonoid that can be found in tea, coffee and cereal and has many pharmacological properties such as anti-inflammatory and antioxidant activities but there is no data about its supportive effects on fertility of adult male diabetic peoples.

Methods: Fifty pubertal (8 weeks old) male wistar rats were divided into five groups including: Control, Diabetic (DM), TX, DM+Insulin and DM+TX. Type I diabetes were induced by a single dose of streptozotocin (IP, 55 mg/kg). Treatment groups received troxerutin (OG, 150 mg/kg/day) and insulin (SC, 4-6 IU/day) for 4 consecutive weeks. Finally, animals euthanized and then left testes were fixed in buffered formalin 10%. The samples were processed by standard paraffin embedding and serially sectioned at 20 µm thickness. Twenty to twenty-five sections per animal were selected through systematic random sampling and stained by H&E. A total volume of testis was calculated by Scherle's method and volume density of germinal epithelium (VGE) was estimated

by point- counting and Cavalieri method by stereo-investigator system using an unbiased study.

Result: Stereolocal results indicated that diabetes decreased VGE significantly (p

Conclusion: Therefore, it can be concluded that administration of TX is a suitable protective strategy to inhibit side effect of diabetes on seminiferous tubules of pubertal diabetic males.

Keywords: Diabetes, Germinal epithelium, P4, Pubertal, Testis, Troxerutin

P120: The effect of troxerutin administration during prepubertal period on total number of spermatogenic cells in type I diabetic rats

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Background: It is believed that the production of reactive oxygen species and development of oxidative stress is one of the major events for testis damage in diabetic patients. Troxerutin (TX) is a trihydroxyethylated derivative of the natural bioflavonoid rutins and commonly known as vitamin P4, possess well-proven antioxidant activities but there is no report to investigate whether troxerutin has a supportive effect on spermatogenesis process in diabetic peoples.

Methods: Fifty prepubertal (2 weeks old) male wistar rats were divided into five groups including: Control, Diabetic (DM), TX, DM+Insulin and DM+TX. Type I diabetes was induced by a single dose of streptozotocin (IP, 55 mg/kg). Treatment groups received troxerutin (OG, 150 mg/kg/day) and insulin (SC, 4-6 IU/day) for 4 consecutive weeks. Finally, animals euthanized and then left testes were fixed in buffered formalin 10%. The samples were processed by standard paraffin embedding and serially sectioned at 20 µm thickness. Twenty to twenty-five sections per animal were selected through systematic random sampling and stained by H&E. Total numbers of spermatogenic cells were estimated by optical dissector and stereo-investigator system using an unbiased counting frame.

Result: Stereological studies showed that diabetes decreased total number of all spermatogenic cells significantly (p

Conclusion: Based on our results, it can be concluded that administration of TX is a suitable protective strategy for side effect of diabetes in testis of prepubertal diabetic males.

Keywords: Diabetes, P4, Prepubertal, Spermatogenic cells, Troxerutin

P121: Which fetal stem cell has more efficiency for expression of female germ-line cell genes?

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Background: Placenta harbors a plentiful source of various cells with stem cells or stem-like cell properties, which can be used in therapeutic procedures and research. Mesenchymal stem cells (MSCs) have attracted much attention due to their specific differentiation potential and tolerogenic properties.

Methods: MSCs have been isolated from different parts of placenta; however, in this study, we isolated MSCs from amnion and chorion membrane, as well as

umbilical cord (Wharton's jelly [WJ]) and compared their capacity regarding differentiation toward female germ cells under influence of 10 ng/mL BMP4. All placenta samples were collected from delivering mothers by normal cesarean section and cells were isolated by different methods.

Result: Results showed that all isolated cells were mostly positive for the MSC markers CD73, CD166, and CD105, and minimally reacted with CD34 and CD45 (hematopoietic markers). After differentiation induction using third passage cultured cells, immunocytochemistry staining showed that cells were positive for germline cell-related genes Ssea4, Oct4, and Ddx4, and oocyte-related gene Gdf9. RT-qPCR results indicated that human chorion MSCs (hCMSCs) had a greater potential to be differentiated into female germline cells.

Conclusion: Moreover, the results of this study indicate that human umbilical cord MSCs originated from either male or female umbilical cord have the same differentiation potential into female germline cells. We recommend that for presumptive application of MSCs for infertility treatment and research, hUMSCs are best candidates due to their higher differentiation potential, ease of proliferation and expansion, and low immunogenicity.

Keywords: Differentiation potential, Germ cells, Mesenchymal stem cells, Oocyte, Umbilical cord, Amniotic membrane

P122: Explaining women's social beliefs about infertility treatment: a qualitative study

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Background: People always pay attention to their infertility problem as a riddle. Throughout history, humans attempt towards this issue joined together with art and religions. Overall, the impact of religion and religious beliefs in individual and community health is very important leading to an individual's mental tranquility. The present study tries to explain the effect of social beliefs on infertility treatment.

Methods: This qualitative study aims to explain the effect of social beliefs on infertility treatment regarding 30 women aged 40 years and over in Neyshabur by means of data collection, individual interviews and focus group interviews. Sampling continued until data saturation. The data were analyzed using content analysis and Atlas.ti software. The method was to verify the accuracy of data from participants and review practices from foreign observers.

Result: The participants recited chapters of Qur'an, Islamic tradition and relied on religious books, especially Mafatihul Jenan, and prayers. They used to refer to the holy places or resort to holy water recommended for pregnancy. Furthermore, they adhered to this belief that the men should avid the use of gold as it leads to their sterility.

Conclusion: Based on the obtained results and with respect to the importance of reproduction, the in-depth examination of couple's beliefs on this issue should be considered on the agenda of health policymakers and so for treatment of infertility from both material and spiritual interest search solution and also for diagnostic and therapeutic procedures with the popularity of people should pay special attention to this matter.

Keywords: Infertility, Qualitative study, Treatment, Social belief

P123: Explaining women's beliefs about couple's nutrition and infertility treatment: a qualitative study

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Background: One of the most effective and least-expensive ways to prevent and treat infertility is to correct nutrition. Many studies have confirmed the fact that pregnancy increases the consumption of particular foods. Considering the importance of the relation between nutrition and infertility treatment, this study focused to explain women's beliefs in this issue.

Methods: In this qualitative study, 70 women aged 35 to 85 participated in Neyshabur city. Data collection, individual interviews and focus group interviews were applied in this research. Sampling continued until data saturation. Data analysis was done using content analysis method and the ATLAS.ti software. Moreover, outside observers scrutinized the reliability of information rendered by participants.

Result: Participants' consumption of nuts such as almonds, walnuts, hazelnuts, pistachios and eating bananas and mix milk, honey, dates, Halva candies and grape juice, carrot and seeds of carrot, sheep's liver were effective on infertility treatment. They also believed that eating meat is harmful during pregnancy because of damage to the uterus.

Conclusion: So, the high regard of women rooted in the classical and traditional medicine. Based on traditional medicine point of view and in accordance with the beliefs of women, use proper food programs according to the type of temperament and can in some cases cause infertility treatment and in some cases protective treatment.

Keywords: Infertility, Nutrition, Qualitative study, Treatment, Belief

P124: Explaining women's beliefs about infertility treatment with herbal medicines: a qualitative study

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Background: For years, people have used herbal therapies to treat infertility. There are certain plants and herbs that their extract leaves a positive effect on reproductive organs, hormonal system and sexual desire in men and women. These plants help sperm mobility. These plants resolve problems such as hormonal imbalances, irregular menstruation, erectile dysfunction and problems related to sperm stimulation. Considering the importance of this issue, this study aims to highlight women's deep beliefs about the treatment of infertility by herbal medicines.

Methods: In this qualitative study, data were collected by individual interviews and focus group interviews of 65 women aged 31-76 years in the city of Neyshabur with the aim of explaining their beliefs about the treatment of infertility drugs. Sampling continued until data saturation. Analysis of data was performed by content analysis method and the ATLAS.ti software. The method was to check the validity of the participants and foreign observers for reliability.

Result: According to the research findings, the use of medicinal herbs was in gastrointestinal, respiratory and contact forms to treat infertility. Participants expressed the effect of herbal medicines on vaginal dryness, cold uterus, robust sperm, flatus in the womb, tighten the rein's women.

Conclusion: According to the belief about the power of traditional medicine treatment, participants were in abundance in a statement, So should it be viewed as one component of treating infertility and to strengthen the principles and the proper use of traditional medicine and to remove barriers to more use of traditional medicine for the treatment of infertility planning.

Keywords: Herbal, Infertility, Qualitative study, Treatment, Belief

P125: The effect of alpha-lipoic acid supplementation on semen quality in rats with experimental varicocele induction

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Background: Varicocele is the main cause of male infertility worldwide. There is a close linkage between varicocele pathogenesis and oxidative stress. It is

indicated that male infertility is associated with a lower intake of some antioxidant nutrients. One of the antioxidants which recently noticed is alpha-lipoic acid (ALA) that highly used in different diseases. Recently, it is used to treat infertility. Therefore, in the present study we tried to investigate effects of ALA on semen parameters (concentration, motility and abnormal morphology) in rats with experimentally induced varicocele.

Methods: Adult male Wistar rats (n=40) were divided into 4 groups of 10 animals each. Group I and II were considered as control and varicocele-induced groups, respectively. Rats received and did not receive alpha-lipoic acid for 2 months after inductions of varicocele were considered as group III and IV. Then, sperm concentration, motility and morphology were assessed in semen samples of each group.

Result: sperm normal morphology, motility and concentration were significantly low in varicocele induced group compared with control group , hence, we observed significant recovery in all the semen parameters in ALA-treated group compared with un treated group.

Conclusion: The present study is the first study which evaluates ALA antioxidant effect on the varicocele-induced rats. We concluded that ALA has a strong potential in neutralizing oxidant effect of ROS-induced by varicocele in morphology, motility and concentration of male rats. We suggest that further studies should be conduct on the effect of ALA in infertilities caused by varicocele in human.

Keywords: ALA, Antioxidant, Semen parameters, Varicocele

P126: The effect of exenatide, a glucagon - like peptide-1, on adiponectin in rats with polycystic ovarian syndrome

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Background: Polycystic ovary syndrome (PCOS) is a complex endocrine and metabolic disorder associated with ovulatory dysfunction. The level of adiponectin is low in women with PCOs that has been attributed to obesity which is common among these patients. The aim of this study was to investigate the effects of exenatide on the adiponectin receptors in PCO rats.

Methods: Twenty eight normal cyclicity female wistar rats weighting 175-200 g were used in this study. PCOS were induced through the injection of 4 mg estradiol valerate per rat. PCO rats were treated by the different doses of exenatide (50, 100 mg/kg). The adiponectin receptors expression were evaluated using Real Time RT-PCR method.

Result: The result of study showed that exenatide at different doses increased the level of adiponectin and also increased the adiponectin receptors expression that these receptors have glucose-lowering as well as anti-inflammatory effects.

Conclusion: Exenatide, a glucagon-like peptide, had useful effects on diabetes mellitus and metabolic syndrome with increased adiponectin receptors expression.in PCO rats. we conclude that exenatide can improve metabolic indices and type 2 diabete in PCO rats.

Keywords: Adiponectin, Diabetes mellitus, Exenatide, Metabolic syndrome, Polycystic ovarian syndrome

P127: The protective effects of pomegranate seed oil on sperm parameters and spermatogenesis quality

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Background: Fruits are rich source of antioxidant with significant potentials in neutralizing adverse impacts of lead on sperm parameters. The present study aimed to determine the effects of pomegranate seed oil on sperm parameters and spermatogenesis quality in adult rats exposed to lead.

Methods: This was an experimental study conducted on male wistar rats (n=45) weighing 180±20 g that randomly divided into 5 groups (n=9):distilled water gavage (control); intraperitoneal distilled water; pomegranate seed oil (PSO); lead; and lead plus PSO(LPSO).The animals received a 30-day treatment and then were sacrificed for the sperm parameters assessments. Sperm count, motility and morphology assessment, chromatins, epididymis and testis weights were performed. The collected data were analyzed by Kruskal-Wallis, Wilcoxon,Mann-WhitneyU-test,and Chi-square using SPSS (version13) software. Statistical significance was set as P< 0.05.

Result: The results showed statistically significant differences on weight gain, epididymis weight, sperm inviability rate, and high sperm motility between the groups (P0.05).

Conclusion: PSO has positive effects on weight gain, epididymis weight, and viable sperm percentage in rats and reducing the lead induced toxic effects on sperm viability. conclusion:PSO has positive effect on spermatogenesis and Sperm Parameters.

Keywords: Antioxidant, Lead acetate, Pomegranate seed oil, Spermatogenesis

P128: Polycystic ovary syndrome and sexual function among Iranian women

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Background: Polycystic ovary syndrome (PCOS) and its physiological and psychological changes influence the sexual function. In the present study, we aimed to assess the association of PCOS and its clinical signs with sexual function among a population of married Iranian women. In this study the impact of clinical signs of PCOS on sexual function was the main outcome measure.

Methods: This cross-sectional study was carried out on 400 married women with PCOS aged 18-45 years. Data were collected using a questionnaire including information on demographic and reproductive status and the Female Sexual Function Index. Data were analyzed using chi-square test, Mann-Whitney test, and logistic regression analysis.

Result: The participants' mean age was 28.3 years. Among associated manifestations of PCOS, infertility and hair loss have significant adverse effects on female sexual function. Logistic regression analysis showed that PCOS women with infertility have a significantly lower sexual function score compared with those who are fertile. Subgroup analysis demonstrated that compared with their fertile counterparts, PCOS women with infertility had significant sexual dysfunction in all aspects except desire and pain.

Conclusion: Among various manifestations of PCOS, infertility mainly disrupts the sexual function of affected women.

Keywords: Polycystic ovary syndrome, Sexual dysfunction, Sexual function, Infertility

P129: Maternal killer-cell immunoglobulin-like receptor (KIR) and paternal human leukocyte antigen (HLA-C) genes relationship with risk of preeclampsia

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Background: Among the approaches to preeclampsia, immune system and its involving molecules can be pointed out. Natural killer cells (NKs) are the most important cells in the fetomaternal immune tolerance inducing through interaction of maternal killer-cell immunoglobulin-like receptors (KIR) and fetal human leucocyte antigens (HLA). Hence, we intend to investigate maternal KIR, maternal and paternal HLA-C, and maternal-paternal KIR-HLA interaction in both preeclampsia and control groups.

Methods: For this present case-control study, 200 couples participated in the study. DNA samples were genotyped based on polymerase chain reaction with specific sequences of primers (PCR-SSP) assay.

Result: Among the maternal KIR genes, maternal HLA-C genes, and maternal KIR-HLA combinations, no significant deference was observed between the cases and controls. Paternal HLA-C genes and genotypes were significantly different between the cases and the controls. A significant relation was found for maternal KIR and paternal HLA combination. The relation was for the inhibitory combination KIR2DL1+HLA-C2 in the preeclampsia group.

Conclusion: The inhibitory combinations of KIR-HLA seems to be more associated with preeclampsia. Prediction of preeclampsia with help of maternal KIR typing and paternal HLA-C typing can be possible in future.

Keywords: HLA-C, PCR-SSP, Preeclampsia, KIR

P130: Optimization and application of molecular preimplantation genetic diagnosis (PGD) with study of C677T polymorphism of the MTHFR gene involved in recurrent miscarriage

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Background: PGD is screening method for couples who wish to have a healthy child and can determine genotype of embryos before implantation to prevent from transfer and implantation of affected embryos. The aim of study was to optimization and application of molecular preimplantation genetic diagnosis (PGD) with examination of methylene tetrahydrofolate reductase (MTHFR) C677T polymorphism and sex determination in human preimplantation embryos.

Methods: A number of 50 cleavage stage embryos (not usable for IVF) for MTHFR C677T polymorphism and sex determination study were tested. After cell lysis, whole genome amplification (WGA) was performed with primer extension preamplification (PEP-PCR) method. To determine this polymorphism in the blastomeres, fluorescent PCR was used with labeled primers and subsequently cut with HinfI enzyme and finally, the exact size of PCR productes were determined using capillary electrophoresis.

Result: Only 37 samples out of 50 blastomeres amplified successfully that among them 23 male and 14 female embryos were observed and 25 normal genotype, 9 heterozygous and 3 mutant genotype were detected. The frequencies of 677C and 677T allele were 80% and 20% respectively.

Conclusion: In this study, MTHFR c.677C>T genotype frequency in human preimplantatin embryos was evaluated. Studies trying to establish an association between folic acid metabolism and preimplantation embryo development have shown that MTHFR is expressed in both human oocytes and embryos .Given the relative ease with which embryonic MTHFR genotype can be determined, this polymorphisms may represent valuable new biomarker for the assessment of embryo competence and improve in vitro fertilization (IVF) process.

Keywords: C677T polymorphism, MTHFR gene, PEP-PCR, Recurrent miscarriage, PGD

P131: The effect of leukemia inhibitory factor, a major uterine cytokine, on dendritic cells differentiation

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Background: Dendritic cells (DCs) are the leading antigen presenting cells and the key coordinators of the immune responses which their phenotype and function are regulated by the local microenvironment determined generally by cytokines. Accordingly, DCs generated in the uterine milieu are essentially affected by the immune-suppressive cytokines such as IL-10 and TGF-β that leads to generation of tolerogenic DCs to protect the semi-allogenic fetus. Another cytokine which is expressed at highest concentrations in the uterine and is strongly associated with normal pregnancy is Leukemia Inhibitory Factor (LIF). In current study, we investigated the sole effect of LIF on DC precursors to find out any alteration in their phenotype and function.

Methods: DCs were generated from the murine bone marrow (BM) precursors in the presence of DC differentiation factors, GM-CSF and IL-4. Selected cultures were also treated by LIF. In flow cytometric analysis, obtained DCs identified by CD11c expression were evaluated for the expression of MHCII, CD40 and CD80 and their endocytic-capacity was assessed by measuring dextran uptake.

Result: We found that LIF-treated DCs had increased expression of phenotypic markers CD40, CD86 and MHCII. Meanwhile, LIF-DCs exhibited higher endocytic-capacity for dextran than did normal DC, though this increment was not significant.

Conclusion: Our study suggests that LIF significantly increased the phenotypic markers of maturation while maintaining the immature ability of DCs to uptake antigens. So, these results do not contradict the previous studies indicating that uterine DCs have a tolerogenic partially-mature state.

Keywords: LIF, Uterine cytokines, Bone-marrow derived dendritic cells

P132: Ligation or cutting the veins in varicocelectomy: which one is better?

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Background: Varicocelectomy is one of the most common surgeries in urology. Many surgeons prefer to legate and cut the affected spermatic cord veins, but it needs to release and double ligating of each side of veins with surgical strings. To reduce the known complications as hematoma and testicular artery injuries, we evaluated and compared the only ligation of vein and not cutting them for complications and outcomes with conventional technique for inguinal and sub-inguinal varicocelectomy .

Methods: Between March 2010 and February 2013, 578 patients with left varicocelectomy divided in two groups. For group A (n=235), only ligation of veins and for group B (n=343) ligation and cutting the veins were done. All patients followed up for 6-24 months (mean 10 months).

Result: In group A, no hematoma was seen during 24hours. After surgery, 11 patients (4.7%) had recurrence of varicocele but mostly with lower grade during follow-up. In group B, 6 patients had mild to moderate hematoma and 14 patients (4%) showed recurrence of varicocele (P>0.05). Improvement in semen analysis in two groups was nearly the same (78%). The mean time of surgery for group A was about 8 minutes less than group B.

Conclusion: We recommend that varicocelectomy can be done without cutting the veins and only ligation of

the veins seems to be enough with less complications and time for surgery.

Keywords: Ligation, Veins, Varicocelectomy

P133: Evaluation the effect of achillea millefolium extract on changes of MDA of testis following administration of cyclophosphamide in mice

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Background: Apart from being an immunosuppressant agent, cyclophosphamide (CP) has been known to induce oxidative stress. The achillea millefolium (AM) is a well-recognized medicinal plant with powerful antioxidant property. One of the by-products of lipid peroxidation is MDA (Malondialdehyde), which used to estimate prooxidative damage rate. This study was planned to evaluate the effects of AM hydroalcoholic extract against changes of MDA following CP exposure in mice.

Methods: Thirty two adult NMRI (National Medical Research Institute) male mice were arranged into 4 groups. The group 1 as control received (5 ml/kg,daily) Normal Saline, the group 2, received CP (5mg/kg, daily), group 3 received AM extract (75mg/kg, daily) and group 4 received CP (5mg/kg, daily) + extract of AM (75mg/kg, daily). Treatments were continued for 35 days. 24 hours after last treatment, all of mice were euthanized and autopsied and testes separated, MDA in format of TBARS (Thiobarbituric acid reactive substances) were evaluated using Esterbauer & Cheesman method. TBARS values were expressed as nmole per mg protein. Statistical analyses were performed using ANOVA and Tukey test.

Result: Biochemical studies showed that the amount of MDA in group 2 significantly increased compared to the control group (P

Conclusion: Increasing the amount of MDA can be considered as the direct cause of CP induced lipid peroxidation and AM extract likely through inhibition oxidative reactions, reduces adverse effects of CP.

Keywords: Cyclophosphamide, Malondialdehyde, Mice, ROS, Achillea millefolium

P134: HIWI3 gene polymorphism and male infertility

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Background: Oligo and azoospermia as the male infertility factors can be found in one out of six couples suffered from infertility problems around the world. In general, genetic and environmental factors involved two groups of factors in male infertility. HIWI3 polymorphism has been reported as one of the genetic factors. The purpose of this study was to evaluate the association between HIWI3 rs11703684(C>T) in men with idiopathic azoospermia/oligozoospermia.

Methods: In the case-control investigation, we determined genotypes of HIWI3 C>T polymorphisms by Tetra Arms-PCR technique in 100 cases with idiopathic azoospermia/oligozoospermia and 100 fertile men as control.

Result: DNA analysis of the case and control groups for HIWI3 C>T polymorphism showed no significant association between two groups. Our data showed that no significant difference in the frequency of allelic polymorphism HIWI3 gene in case groups (TT: 1% -TC: 25%- CC: 74%) and control (TT: 6% -TC: 30% -CC:64%) exist (p>0.05).

Conclusion: The results suggested that C>T gene variation HIWI3 was not contributed to the genetic predisposition of male infertility.

Keywords: HIWI gene, Oligozoospermia, SNP, Azoospermia

P135: Compare the thickness of the endometrium and height of endometrial epithelium in mice uterus before implantation in natural cycles followed by use of HMG - HCG drugs and epigallocatechin gallate

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Background: Angiogenesis plays a major role in endometrial receptivity and thickening of the endometrium immediately before implantation. The aim of the present work was to evaluate the anti-angiogenic properties of epigallocatechin gallate (EGCG) from green tea in thickness of endometrium and height of endometrial epithelium.

Methods: In this study, 40 adult female NMARI mice randomly divided into four groups. Control group received vehicle; HMG/HCG group received 7.5 IU HMG intraperitoneal (IP) and 48 h later 7.5 IU HCG was injected (IP) for ovarian stimulation; HMG/HCG + EGCG group received HMG and HCG in the same manner as previous group and also received 5 mg/kg EGCG at 0, 24, 48, and 72 h after injection of HMG; and the group EGCG received 5 mg/kg EGCG. A male mouse was kept with two female animals in the same cage for mating. Mice were dissected 96 h after administration of HMG (immediately before implantation) and tissue processing was carried out for the uterine specimens.

Result: The thickness of the endometrium and height of endometrial epithelium decreased in receiving EGCG groups compared to the control and receiving HMG / HCG groups, although the difference was not significant ($P > 0.05$). The thickness of endometrium and height of endometrial epithelium were counted by Motic Images Plus 3.2 software under a light microscope.

Conclusion: The use of gonadotropins and EGCG could not be significant changes in endometrial thickness of the endometrium and height of endometrial epithelium.

Keywords: Epigallocatechin gallate, Human menopausal gonadotropin / Human chorionic gonadotropin, Implantation, Angiogenesis

P136: A review of polycystic ovary syndrome (POCS) and Hoxa5 gene in mammalian

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Background: Polycystic ovary syndrome (PCOS) is endocrine disorder affecting women in their reproductive years and is a major cause of anovulation and consequent subfertility. There is evidence to support that, many factors including metabolism, hormones and genetics are involved in PCOS, also environmental factors such as diet and exercise affect PCOS. Of genes that have altered expression in human reproductive system disorders are Hox gene family genes. Hox genes are transcription factors in regulation of cell proliferation, differentiation, adhesion and migration in specifying regional identity along the embryonic axes and morphogenesis. Hoxa5 is expression in the stroma of the ovary and oviduct throughout the estrous cycle. Also Hoxa5 transcripts are detected during gestation with a progressive raise in the corpus luteal, this expression of Hoxa5 suggests that it may be subjected to regulation by sexual hormones. The loss of Hoxa5 function leads to ovarian epithelial cyst formation in females. POCS detected in Hoxa5 -/- females. Presence of ovarian epithelial cysts in Hoxa5 -/- females indicated that the loss of Hoxa5 function in stroma may affect on ovarian surface epithelium (OSE) cell behavior that is supported by the decreased expression of proteins involved in epidermal growth factor receptor (EGFR) signaling, a key pathway for ovarian homeostasis.

Methods: This article is a review of scientific researches.

Result: In this work we used data from Google.

Conclusion: Hoxa5 is necessary to warrant EGFR signaling that is essential for the postovulatory epithelium repair and ovarian physiology in mammalian.

Keywords: EGFR, Hoxa5, Mammalian, OSE, PCOS

P137: Occupational and environmental effects on the reproductive process

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Background: Embryonic and fetal period is very susceptible to external factors contact. Since men and women are exposed to many pollutants and occupational hazards, the aim of this study is to investigate occupational and environmental effects on the reproductive process.

Methods: A narrative review was performed within articles published by "PubMed ","Elsevier","SID "and original text books to reach the aim.

Result: A number of occupations are being reported to be related with reproductive disorders in human. By increasing labor force participation among women, most of the women will work during their fertility ages. This will increase the possibility that women during pregnancy will be exposed to a variety of chemical, psychosocial and physical factors at work. The outcome of pregnancy maybe affect by occupational exposures like miscarriage, stillbirth, preterm birth, small-for-gestational age and low birth weight. Some pesticides may interfere with the female hormonal function which may cause negative effects on fertility through destroying the hormonal balance necessary for suitable functioning .In men, fertility and semen quality such as motility, morphology and count of sperms associated with environmental exposure like pesticides, cadmium, heavy metals like mercury, copper, and substances from various industrial, phthalates, polyvinyl chloride. Moreover, occupations with severe exposure to heat and radiation, or jobs involving the use of toxic solvents and toxic fumes are reviewed to be related with infertility.

Conclusion: Environmental and occupational exposures can result in adverse effects on female and male reproduction. Further studies are needed to show which toxicants affect human reproduction and by which mechanisms. Therefore, more studies are needed to clarify the adverse effects of toxicants.

Keywords: Infertility, Occupational exposures, Reproductive process, Environmental exposures

P138: Can varicocelectomy improve the premature ejaculation?

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Background: The aim of this study was to determine the impact of varicocelectomy on the patient with premature- ejaculation and varicocele together.

Methods: A clinical trial study was performed on 280 patients (20-30 years old) with varicocele and PE since March 2011 to April 2015. Inguinal and sub inguinal varicocelectomy were done for them. These patients had impairment of spermogram and PE together. These patients were followed up about 1 years, and evaluated for premature- ejaculation and parameters of spermogeram before and after surgery.

Result: This study included 280 patients with varicocele and PE after surgery. 103 patients (36%) with PE and varicocele were treated fully(0

Conclusion: Varicocelectomy can effectively improve PE and spermogram parameters in significant number of the patients who had clinical varicocele and not well responded to medical treatment of premature ejaculation.

Keywords: Premature ejaculation, Varicocele, Varicocelectomy

P139: The effects of hydrocele on spermogram

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Background: Hydrocele is very common in men and may affect their fertility. It is well known that pressure and warm temperature are main causes that hydrocele can adversely affect spermatogenesis .

Methods: The spermogram of 62 patients with moderate to severe unilateral hydrocele (18-42years) was evaluated before hydrocelectomy from May 2015 to July 2017.

Result: A number of 43 (69%) patients had some degrees of impaired spermogram (abnormal count n=21) abnormal motility n=33 and abnormal morphology n=18. Some patients had two or three abnormalities at the same time.

Conclusion: We believe that hydrocele can adversely affect normal spermatogenesis .

Keywords: Hydrocele, Spermatogenesis, Spermogram

P140: Jurisprudential challenges of surrogacy in Iran

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Background: Surrogacy is one of the modern methods of infertility treatment involving the use of another woman's uterus. The purpose of this study was to investigate the juridical challenges towards surrogates in Iranian society.

Methods: The data of the present review study has been derived from pubmed, google scholar, SID, science direct from 2000 to 2016 with keyword searching of jurisprudence, surrogacy, and assisted reproductive techniques.

Result: Full replacement of the uterus where sperm and egg couple assisted reproductive techniques in vitro fertilization and transferred to the uterus of the surrogate mother, has been less critical legal and juridical is than Alien egg fertilized with the father's sperm in a lab environment or Using embryos donated by couples fertility, and transfer it to the womb of infertile women who are infertile husband or wife or both.

Conclusion: Nowadays, surrogacy is recognized as one of the most challenging issues which should be taken into account as it is the way the infertile couples resort to for having children, and also because there is the possibility for commercial exploitation of this healing process. It is better to choose the desired criteria and the values of the social, religious and cultural adopted in society for surrogacy.

Keywords: Assisted reproductive techniques, Surrogacy, Jurisprudence

P141: Study of the long-term and dose dependent effects of methylphenidate and monosodium glutamate on the Leydig cells population in adolescent rats

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Background: Methylphenidate is one of the most common medications used for maintaining alertness and improving of attention which may lead to increased risk of substance abuse in some cases. Monosodium glutamate is a food additive which has toxic effects on human and animal's tissues. Due to the various side effects of methylphenidate and monosodium glutamate on the reproductive system, the aim of this study was to evaluate the effects of

these compounds on the alterations of Leydig cells population.

Methods: Low and high dose of methylphenidate (5 and 10 mg/kg) and monosodium glutamate (6 and 60 mg/kg) were administrated separately and/or in combination form to adolescent rats for 60 days. Testicular tissue samples were studied under light microscope for measurement of Leydig cells number.

Result: The results showed that high dose of methylphenidate and low dose of monosodium glutamate and/or combination form of these two compounds have more effects on the reduction of Leydig cells population. Low dose of methylphenidate with high dose of monosodium glutamate influenced some alterations on the population of Leydig cells. The distinct use of methylphenidate and monosodium glutamate led to slight decrease of cell population but, simultaneous use of these compounds led to significant decrement of Leydig cells.

Conclusion: It has been concluded that the coadministration of methylphenidate and monosodium glutamate can be effective in alteration of Leydig cells number and through induction of some hormonal alterations may lead to some changes in normal function of reproductive system.

Keywords: Leydig cells, Methylphenidate, Monosodium glutamate, Adolescent rats

P142: The relationship between dietary vitamin D intake and serum androgen components in polycystic ovary syndrome subgroups based on Rotterdam criteria

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Background: Polycystic ovary syndrome (PCOS) is the most common hyperandrogenic disorder in reproductive-age women in Iran which has relatively high prevalence. There is an oxidative stress and inflammatory basis in the pathogenesis of PCOS. Vitamin D (vitD) has a favorable influence in improving oxidative stress and its deficiency is also associated with obesity and insulin resistance (IR). Moreover, IR increases hyperandrogenism. At present, there is a gap about Vitamin D –androgens relationship. Thus, this study sought to assess that in PCOS subgroups.

Methods: This case-control study which was approved by the Medical Ethics Committee, was conducted by convenience sampling method on 182 patients eligible for the study. Subjects were classified according to the Rotterdam criteria: A(n=41), B(n=33), C(n=40), D(n=37) and control(without any PCOS)(n=31). Androgenic components included total-testosterone(TT), free-androgen-index(FAI), sex-hormone-binding-globulin(SHBG). Assessment of dietary Vitamin D intake was carried out by valid-reliable 168-items FFQ. Statistical analysis was performed using SPSS22 software and Spearman correlation tests

Result: Statistically significant correlations between vitD & androgenic components in each subgroups separately were as follows: A [TT(r:-0.5, P< 0.001), FAI (r:-0.3, P: 0.04)] B [TT(r:-0.5, P: 0.002), FAI (r:-0.6, P< 0.001)] C [TT(r:-0.31, P: 0.04), FAI (r:-0.5, P:0.001), SHBG (r: 0.3, P: 0.01)] D [TT(r:-0.5, P< 0.001), FAI (r:-0.7, P< 0.001)]. No statistically significant correlations was found in control group (P> 0.05).

Conclusion: Regarding beneficial effects of vitD on androgenic components, it can be one of the modifiable factors affecting the hyperandrogenic complications of PCOS.

Keywords: Hyperandrogenism, PCOS, Vitamin D

P143: Evaluation of the risk of metabolic syndrome as a result of dietary selenium intake deficiency in PCOS patients

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Background: Polycystic ovary syndrome(PCOS) is the most common endocrine disorder in childbearing-aged women in Iran which has relatively high prevalence. The risk of metabolic syndrome (MetS) in

women with PCOS compared with healthy women was found to be more than 2 times. MetS increase the complications associated with PCOS. Oxidative stress may play a role in the pathophysiology of PCOS and MetS. Selenium (Se) is a powerful antioxidant/anti-inflammatory micronutrient which decrease in PCOS patient's plasma. The aim of this study was to assess the risk of metabolic syndrome as a result of inadequate selenium intake in PCOS patients.

Methods: This case-control study which was approved by the Medical Ethics Committee was conducted by convenience-sampling-method on 182 patients eligible for the study. Subjects were classified according to the Rotterdam criteria as follows: A(n=41), B(n=33), C(n=40), D(n=37) and control(without PCOS)(n=31). MetS was measured based on NCEPATPIII criteria. Assessment of dietary Selenium intake, was carried out by valid/reliable 168-items FFQ. Selenium cut-off was determined 55 µg/d according to the recommended-dietary-allowances (RDAs). Statistical analysis was performed using SPSS22 software and Fisher-exact-tests.

Result: The percentage of MetS as a result of selenium deficiency in each group was as follows: A: 87.5% (n=7) (P< 0.001) B: no statistically significant differences (P> 0.05) C: 100% (n=1) (P= 0.02) D: 33.3% (n=4) P=0.03 (OR:12.4, CI:0.008-0.85)

Conclusion: With regard to anti-inflammatory/antioxidant effects of selenium, dietary deficiency of this micronutrient, can be one of the modifiable factors affecting the progress of PCOS to MetS.

Keywords: Inflammation, Metabolic syndrome, Oxidative-stress, PCOS, Selenium

P144: The effect of KLK2 nsSNPs on prostate related disease

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Background: Kallikrein2 (KLK2) codes a serine protease enzyme that cleaves pro-PSA to active PSA which has an important role in liberation of sperm and fluidity of semen by shattering of semenogelin and fibronectin. Hence, any polymorphism of this gene could effect on serine protease activity, which means they can associate with any prostate disease such as prostate cancer and infertility.

Methods: In this study, 5 nsSNPs were chosen which H65Y, and G214E are in active site; D207N, and S228A are in substrate binding site, and R250W that its GMAF is more than 1%. The influence of these substitution on function and stability of protein and being deleterious were predicted by Polyphen2.0, Provean, Imutant3.0 and SIFT.

Result: All 5 nsSNPs were predicted as affected on protein function. The PolyPhen 2.0 predicts that D207N and S228A are possibly damaging, G214E, and H65Y are probably damaging and R250W is benign. Also D207N, G214E, and H65Y are deleterious while S228A, and R250W are neutral. The H65Y may increase the stability of protein, but other nsSNPs were checked, could decrease the stability.

Conclusion: Among intended nsSNPs, D207N has destructive effect on this enzyme, while R250W may has less destruction. Change of hK2 enzyme function by mentioned nsSNPs could associate with some diseases like infertility and prostate cancer.

Keywords: Infertility, In-silico, KLK2, Deleterious nsSNPs

P145: The role of sperm factors involved in oocyte activation and fertilization

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Background: Failed fertilization post intra-cytoplasmic sperm injection (ICSI) has been mainly attributed to the sperm's inability to induce oocyte activation. This phenomenon may account for about 30% of human oocytes that fail to fertilize following ICSI and 2–3% of complete fertilization failure following ICSI. PLCζ (Phospholipase C zeta), PAWP (Post-acrosomal WW-domain binding protein) and TR-KIT (Truncated form of KIT) are suggested as main sperm factors for the induction of oocyte activation. The aim of this study was to compare PLCζ, PAWP and TR-KIT between infertile men with globozoospermia and men with failed fertilization post-ICSI with fertile individuals at sperm RNA and protein molecules level. In addition, localization of these sperm factors also was determined.

Methods: In this study, semen samples were collected from 50 infertile men with failed fertilization post ICSI, 30 globozoospermic men and 30 fertile men. Sperm parameters (concentration, motility, morphology) were assessed according to World Health Organization (2010) and Real-time PCR, Western blot and immunofluorescence techniques were used for assessment of RNA, protein, and localization of PLCζ, PAWP and TR-KIT, respectively.

Result: Mean expression of sperm PLCζ, PAWP and TR-KIT at RNA and protein level were significantly lower in infertile men with globozoospermia and men with failed fertilization post-ICSI compared to fertile individuals. These factors mostly were observed in equatorial region of sperm head.

Conclusion: The result of this study, for the first time, suggested that all three sperm factors involved in oocyte activation significantly decreased in infertile individuals with failed fertilization ICSI and globozoospermic individuals compared to fertile men at RNA and protein. In addition, localization of all three sperm factors were detected in equatorial of sperm head, where fusion of sperm and oocyte occur. Therefore, assessment of expression of PLCζ, PAWP and TR-KIT were consideredas useful markers for the ability of sperm to induce oocyte activation .

Keywords: Globozoospermia, PAWP, PLCζ, TR-KIT, Fertilization

P146: Effect of zinc sulfate on sperm motility in Frahani ram

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Background: Ram infertility can be the result of different changes made in their reproductive health. The objective of this study was to assess the effect of zinc sulfate treatment on motility characteristics in Farahani rams sperm at in vitro after freezing-thawing. Problems with the production, maturity, motion and fertility of sperms are among the major causes of ram infertility according to the reports. Zinc antioxidant contributes to inhibition of the destructive effects of free radicals in sperms after cryopreservation.

Methods: The aim of this study was to analyze the role of zinc in the improvement motility characteristics. Semen was collected from four adult rams twice a week and samples pooled together. Sperm samples (five repeats) containing zinc sulfate in three levels (0, 50, 100 µMol) had been frozen. After semen samples freezing, samples were thawed and examined in terms of motility.

Result: Average total motility at 100µMol zinc sulfate were lower than other treatments (P

Conclusion: It can be concluded that Zn supplementation had no effect on sperm motility.

Keywords: Frahani, Motility, Ram, Zinc sulfate, Sperm

P147: hypothalamic GnRH antagonist effect on hormone release gonadotropin (LH and FSH) in the follicular phase of the cycle and the beginning of GnRH IVF

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1-

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Background: Most hormones secreted by the anterior pituitary releasing hormones that are produced in the hypothalamus and then through the port hypothalamic - pituitary anterior pituitary gland transmitted. Releasing hormones that are about Gnadvtrpynha importance, GnRH pulsatile GnRH Ast.trshh intermittent and around the hypothalamus causes pulsatile release of LH from the anterior pituitary. According to the antagonist in the treatment of IVF purpose of the study is the change in the antagonist protocol to enhance pregnancy rates Inclusion criteria for men and tubal infertility and condition exclusion (FSH

Methods: In the intermittent release of GnRH, hypothalamic GnRH secretion is not continuous, but rather the rate of 25-5 per 1 minute or 2 hour infusion of GnRH secretion is required in the case Mynmayd.agr, we on the contrary, GnRH injection Rapyvsth not, so that is always available for discrete, can no longer causing the release of LH and FSH from the anterior pituitary gland. All patients routinely flexible antagonist protocol when a receipt is 13 mm follicle size; HMG / rFSH second day of menstruation starts from the dominant follicle and appropriately.It happened only 30 patients GnRH antagonist on days 1, 2 and 3 as groups receive menstruation. In the intermittent release of GnRH, hypothalamic GnRH secretion is not continuous, but rather the rate of 25-5 per 1 minute or 2 hour infusion of GnRH secretion is required in the case Mynmayd.agr, we on the contrary, GnRH injection Rapyvsth not, so that is always available for discrete, can no longer causing the release of LH and FSH from the anterior pituitary gland. All patients routinely flexible antagonist protocol when a receipt is 13 mm follicle size; HMG / rFSH second day of menstruation starts from the dominant follicle and appropriately.It happened only 30 patients GnRH antagonist on days 1, 2 and 3 as groups receive menstruation.

Result: At the beginning of the menstrual cycle (with bleeding) adeno-pituitary gland, hormones LH and FSH releases. FSH effect on granulosa cells, stimulate oocyte production Gamtvzhnzys for the development of follicles and FSH under the control of two protein complex called Myknd.trshh Aktyvyn and Inhibin. In the beginning of the follicular phase with the effect of FSH on granulosa cells, produce Inhibin B increases.Along with the increase in FSH, Inhibin B in the follicular phase decreased when the egg is released and further reduce the amount of FSH. (At this point, most likely Inhibin A was secreted from the body (LH) plays a role.)If the egg is not released yet, there are still high levels of the hormone, probably trying to ovarian pituitary release of the egg, stimulate Lvytal At the end of the phase, atrophic corpus luteum, the production of estrogen and progesterone causes the effect at the beginning of the menstrual cycle FSH secretion inhibitor removal and a peak increase of FSH on the third day of menstruation is created.When the follicles about 8-10 mm in diameter (5-7 day cycle) production of estrogen, especially estradiol, which in turn significantly increases the growth of follicles and on the other hand the growth and development of endometrial also is merciful. At the beginning of the menstrual cycle (with bleeding) adeno-pituitary gland, hormones LH and FSH releases. FSH effect on granulosa cells, stimulate oocyte production Gamtvzhnzys for the development of follicles and FSH under the control of two protein complex called Myknd.trshh Aktyvyn and Inhibin. In the beginning of the follicular phase with the effect of FSH on granulosa cells, produce Inhibin B increases.Along with the increase in FSH, Inhibin B in the follicular phase decreased when the egg is released and further reduce the amount of FSH. (At this point, most likely Inhibin A was secreted from the body (LH) plays a role.)If the egg is not released yet, there are still high levels of the hormone, probably trying to ovarian pituitary release of the egg, stimulate Lvytal At the end of the phase, atrophic corpus luteum, the production of estrogen and progesterone causes the effect at the beginning of the menstrual cycle FSH secretion inhibitor removal and a peak increase of FSH on the third day of menstruation is created.When the follicles about 8-10 mm in diameter (5-7 day cycle) production of estrogen, especially estradiol, which in turn significantly increases the growth of follicles and on the other hand the growth and development of endometrial also is merciful.

Conclusion: Serial ultrasonography, based on the need for endometrial thickness and size of the follicles do Mygrdd.zmany the size of dominant follicles was greater than or equal to 18 mm UHCG at a rate of 10,000 units injected the induce ovulation. Around the same time, approaching the menopause, the ovaries begin to resist and thus the pituitary hormone FSH, FSH produces more estrogen levels high to keep this mode activated, causing severe bleeding and menstrual irregularities Yi unpredictable will occur during the period.The absence of periods in a year and FSH levels above 30 MIU / ML represents the start of menopause. Given that the amount of FSH is very choppy near the

menopause, FSH test only a result of Nyst.afzaysh stable enough for menopause, FSH sign that the normal negative feedback from ovarian issued, does not exist and thus LH and FSH enhanced. Serial ultrasonography, based on the need for endometrial thickness and size of the follicles do Mygrdd.zmany the size of dominant follicles was greater than or equal to 18 mm UHCG at a rate of 10,000 units injected the induce ovulation. Around the same time, approaching the menopause, the ovaries begin to resist and thus the pituitary hormone FSH, FSH produces more estrogen levels high to keep this mode activated, causing severe bleeding and menstrual irregularities Yi unpredictable will occur during the period.The absence of periods in a year and FSH levels above 30 MIU / ML represents the start of menopause. Given that the amount of FSH is very choppy near the menopause, FSH test only a result of Nyst.

Keywords: anterior pituitary, follicle, LH and FSH, the menstrual cycle, antagonist

P148: The effect of evening primrose oil on changes in sex hormones, serum glucose and insulin levels in polycystic ovary syndrome (PCOS) induced by estradiol valerate

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Background: Polycystic ovary syndrome (PCOS) is one of the most important reproductive and endocrine disorders in women. The aim of this study was to evaluate the effect of evening primrose oil on changes in sex hormones, serum glucose and insulin levels in polycystic ovary syndrome.

Methods: A number of 30 female Sprague Dawley rats with regular sexual cycle were divided into five groups (n = 6). Group A: control. Group B: (control treatment) received evening primrose oil gavage (100mg/kg) for 21 days. Group C: PCOS induced by estradiol valerate. Group D: After induction of PCOS received evening primrose oil gavage (100mg/kg) for 21 days. Group E: After induction of PCOS received evening primrose oil gavage (200mg/kg) for 21 days. Finally, blood samples were collected from heart and then sex hormones and glucose and insulin concentrations were determined. The data were analyzed by using SPSS 22 software with statistical method of the one-way ANOVA.

Result: FSH levels in the fourth and fifth groups showed a significant increase compared to the third group. LH and testosterone levels in the fourth and fifth groups were significantly lower than those of the third group. The hormone insulin and glucose concentrations in the fourth group were significantly lower than those of the third group.

Conclusion: Evening primrose oil can improve sexual performance and also reduce the insulin and glucose levels in polycystic ovary syndrome.

Keywords: Evening primrose oil, Glucose, Insulin, Sex hormones, Polycystic ovary syndrome

P149: The effect of ICV injections of calcitonin gene-related peptide and salmon calcitonin on sperm fertility of rats

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Background: Hypothalamic-pituitary-gonadal axis plays an important role in the regulation of fertility. The aim of this study was to evaluate the effect of ICV injection of calcitonin gene related peptide (CGRP) and salmon calcitonin (sCT) on fertility parameters of rat sperm.

Methods: Eighteen male rats were divided into three groups (n=6). In the first group normal saline was

injected into the ventricle (5 µl). CGRP in the second group and sCT in the third group were injected into the brain ventricle (1.5 nmol). After surgery epididymal sperms were used to assess mobility, density, and survival. The data were analyzed by using SPSS software with statistical method of the one-way ANOVA.

Result: In this study, CGRP significantly reduced sperm motility and density compared to the control group. sCT only reduced sperm density compared to the control group. CGRP reduced live spermatozoa and intact acrozome compared to the control group and increased dead spermatozo, loose acrosome, and damaged acrosome. sCT decreased intact acrozome and increased loose acrosome and damaged acrosome compared to the control group.

Conclusion: After ICV injection of CGRP and sCT, sperm fertility in the rats was reduced. In this regard, it was observed that the effect of CGRP in some parameters was higher than sCT. These effects may be due to a reduction in FSH and LH pulses.

Keywords: Fertility, sCT, Sperm, CGRP

P150: Vitamin C prevention of anemia-induced changes in structural and functional parameters of mice prostate

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Background: Phenylhydrazine (PHZ) as a well-known compound causes toxicity in different levels in tissues. The present study aimed to evaluate the probable protective effects of vitamin C against the tissue damages caused by PHZ in mice ventral prostate.

Methods: Twenty-eight adult mice were divided randomly into four groups: first group received 0.1 ml of normal saline intraperitoneally; second group received 60 mg/kg of phenylhydrazine in 48-hour intervals intraperitoneally; third group received 60 mg/kg of phenylhydrazine along with 250 mg/kg of vitamin C intraperitoneally and fourth group received the same doses of vitamin C like the third group. After 35 days, formalin fixed ventral prostate was processed using standard histological method. Paraffin blocks were sectioned at 5–6 µm and stained with Hematoxylin and Eosin (H&E), Periodic Acid Schiff (PAS), Masson's trichrome.

Result: the results of prostate tissue section staining using H&E, PAS and Masson's trichrome revealed positive effects of prescription of vitamin C on anemia-induced changes in histological structure of ventral prostate. The high densities of secretory alveoli was considerable in groups received vitamin C. Furthermore, vitamin C caused an increase in folded secretory alveoli in the periphery of ventral prostate. Stromal connective tissue was increased between the secretory alveoli in vitamin C groups. Toxic effects of PHZ were seen through the production of reactive oxygen species (ROS) and inhibition of ventral prostate activity.

Conclusion: It seems that vitamin C as free radical inhibitors decreased the ventral prostate toxicity induced by PHZ in mice.

Keywords: Histochemical, Mice, Ventral Prostate, Vitamin C, Phenylhydrazine

P151: Histological and histochemical study of prostate gland of mice with phenylhydrazine-induced hemolytic anemia; ameliorating effect of royal jelly

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Background: Phenylhydrazine (PHZ) is used to prepare indoles and to form phenylhydrazines of natural mixtures of simple sugars. However, it is used to induce experimental anemia in animal models. On the other hand, royal jelly is known as antioxidant compound. Therefore, here in present study we aimed to evaluate the protective effect of royal jelly on PHZ-induced damages on ventral prostate.

Methods: Adult male mice were put into four groups included eight in each group randomly. The first group received 0.1 ml normal saline. The second group received 60 mg/kg, IP of PHZ in 48 hour intervals. The third group received 100 mg/kg of royal jelly orally along with phenylhydrazine orally. The fourth group received similar doses of royal jelly. After 35 days, ventral prostate removed for histological and histochemical study using Hematoxylin and Eosin (H&E), Periodic Acid Schiff (PAS), Masson's trichrome methods.

Result: Negative effects of PHZ were seen in histological structure of ventral prostate. Exposure of prostate tissue to PHZ caused disorders in secretion, reduction of epithelium height and reduction of folding in wall of alveolus. On the contrary, groups receiving royal jelly showed improvement in prostate tissue structure and increased active alveolar and tubular units.

Conclusion: In summary, results of the current study shows that royal jelly is an antioxidant agent and can be considered as an appropriate compound in order to inhibit anemia-induced damages on histological structure of ventral prostate.

Keywords: Histochemical, Royall Jelly, Ventral Prostate, Phenylhydrazine

P152: Zinc ameliorates cyclophosphamide-induced reproductive toxicity in male mice

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Background: Cyclophosphamide (CP) is one of the chemotherapeutic drugs used as an antineoplastic agent for treatment of various cancers. Spermatogenesis is sensitive to CP, which decreases the sperm count of humans and experimental animals. Zinc plays an important role in prostate, epididymal and testicular functions and influences the process of spermatogenesis.

Methods: To investigate whether zinc could reduce the reproductive toxicity induced by CP on sperms in a mouse model, 7-week-old male mice were divided into three groups. Two groups of mice were administered CP; CP was treated on the first day of each week for 8 weeks (100 mg/kg, intraperitoneally). One of the groups also received zinc at a dose of 200 mg kg-1 per day by oral gavages for 5 days a week for 8 weeks. The mice in control group received normal saline and water intraperitoneally and orally, respectively. At the end of the treatment period, the epididymis was taken out and used for sperm analysis. The data were analyzed using SPSS software. Probability values of p

Result: The CP-treated group showed significant decreases in the number of sperms compared to the control group. Zinc treatment increased significantly diminished relative epididymal sperm count in mice treated with CP. In fact, zinc caused a partial recovery in number of sperms.

Conclusion: These findings indicated that zinc has beneficial influences and might be partially protective against CP-induced reproductive toxicity.

Keywords: Cyclophosphamide, Reproductive toxicity, Sperm count, Spermatogenesis, Zinc

P153: The relation between micro RNA and infertility

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Background: Despite all efforts, activities and studies in the diagnosis and treatment of infertility, still there is no clear treatment or definitive diagnosis for infertility. It is important to obtain biomarker for infertility. MICRO RNA are small non-coding RNA which be about 19-24 nucleotides in the length that regulates gene expression at the post-transcriptional level. Cellular processes of proliferation and differentiation to apoptosis can be regulated by MICRO RNA. MICRO RNA role in physiological processes pathobiological and is highly regarded. MICRO RNA imbalance will lead to many diseases. Many researchers hope that the MICRO RNA used as a biomarker and therapeutic reagents. In recent years the role of MICRO RNA in infertility research has been done in this review to evaluate them.

Methods: Review of 50 types of research which published since 2000 till 2016 from" PubMed" and "Scopus".

Result: Scientists have discovered the development of relation between genetics and reproductive biology, . However, there is still need for further research in the field of MICRO RNA, but recent studies have confirmed the relationship between the MICRO RNA and infertility.

Conclusion: Using data records in the field of genetics clinic for more fertility treatments will provide the possibility to take better decisions about diagnosis and treatment.

Keywords: Epigenetic, Spermatogenesis, Infertility, Micro RNA

P154: The relationship between smoking and infertility

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Background: In modern societies, tobacco uses is very common and affect the various body systems. The aim of this study was to determine the relationship between cigarettes and other tobacco products with infertility in men and women.

Methods: In a systematic survey of the databases such as PubMed, Elsevier, Ovid, Clinical key, SID, IranMedex and etc. from 2005 to the present, the relevant articles were extracted and analyzed.

Result: The results showed that tobacco use by increasing oxidative stress and DNA damage of cells in semen fluid decreases the sperm production stimulates sperm; lower the natural forms and fertility ability of sperms. Also, smoking increases the rate of infertility in women. There is a direct relation between smoking duration and intensity of infertility. By contrast, smoking cessation, weight loss and iron supplementation improved the treatment of infertility.

Conclusion: The results showed that long-term tobacco use can lead to infertility. Therefore, advise against smoking can solve one of the major risk factors for infertility and quitting smoking can prevent the progression and exacerbation of infertility.

Keywords: Infertility, Risk factors, Spermatogenesis, Tobacco

P155: An overview of abortion from the perspective of different religions and sects

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Background: One way of dealing with the issue of abortion is to morally evaluate it. The aim of this study was to evaluate and compare the abortion laws from the viewpoint of divine religions.

Methods: In a systematic survey of the databases PubMed, Elsevier, Ovid, Clinical key, SID, IranMedex and etc. from 2005 to the present, the relevant articles were extracted and analyzed.

Result: Islam (Shia cult) strictly prohibits abortion except a few cases, what spirit is blown in and what is not. These include the death of the unborn child; the mother's life is in danger, teratogen fetus, and transportation of adultery and so on. Hanifa religious outlooks abortion is possible before four months of age (prior to impart spirit). Malekite sect prohibits abortion at any stage and from the perspective of Hanbali sect forty days before abortion is permissible. From the perspective of Zoroastrianism whatever updated knowledge says should be done. Catholic Christian religion is committed to the dual theory in which the mother's life is more important. Jews believe that if fetus is malformed it cannot be aborted, and if the embryo in the womb, the mother's life is in danger, there are two modes: If fetus is not removed, it can be aborted, but if the larger part of the fetus exit from the uterus it is not possible to waive the penalty.

Conclusion: As our results shows, different religions, faiths and sects have different views on abortion and knowledge of these laws can help parents to choose the best choice.

Keywords: Law, Religion, Abortion

P156: The effect of obesity on infertility: a systematic analysis of mechanisms

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Background: Obesity is a common problem in today's society and is associated with numerous diseases. This study aimed to investigate the relationship between obesity and infertility and the mechanisms affecting it.

Methods: In a systematic survey of the databases PubMed, Elsevier, Ovid, Clinical key, SID, IranMedex and etc. from 2005 to the present, the relevant articles were extracted and analyzed.

Result: Findings showed that obesity leads to undesirable changes in hormonal, physical and Proteomics it. Also, obesity causes decreased levels of testosterone, inhibin B and ghrelin and increased levels of estrogen, leptin and rositin. Obesity is associated with erectile dysfunction and increasing the temperature of the testicles, resulting in infertility associated. Obese men have lower androgen HSBG and abnormal semen parameters are higher in them. The polycystic ovary syndrome (PCOS) that is one of the main causes of infertility is higher in obese people. Changes in diet and lack of exercise that could lead to infertility are higher in obese people. In general, an increase in BMI was associated with increased rates of infertility.

Conclusion: As the findings show obesity has a very wide impact on the body that can lead to infertility. So, understanding of these mechanisms and the importance of obesity effects, could be very significant to control this problem and thus reduce related complications.

Keywords: Hormonal changes, Infertility, Mechanism of action, Obesity, Polycystic ovary syndrome

P157: The relationship between infertility and sexual dysfunction: related factors

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Background: Infertility is a common problem and a complicated crisis for infertile couples resulting multiple psychological problems that can affect their sexual performance. The aim of this study was to investigate sexual function in men and women experiencing infertility.

Methods: In a systematic survey of the databases such as PubMed, Elsevier, Ovid, Clinical key, SID,

IranMedex and etc. from 2005 to the present, the relevant articles were extracted and analyzed.

Result: The findings show that depression caused by infertility lead to sexual dysfunction in men. Couples with infertility suffer from more anxiety, depression and stress. Infertile women younger than 40 years' experience more sexual dysfunction and often have depression at moderate level. Sexual dysfunction is higher in couples with greater age difference. Duration of infertility and economic status negatively correlated with sexual satisfaction. Also, the psychological and physical violence against infertile women is higher than healthy women.

Conclusion: According to the results of these studies, infertility has numerous negative effects on sexual function and cause depression and loss of sexual satisfaction of couples. Moreover, the factors such as duration of infertility and the age difference of infertile couples are negatively correlated with sexual function. Therefore, counseling programs to improve sexual function in infertile couples performance could be recommended.

Keywords: Depression, Satisfaction, Sexual function, Infertility

P158: Risk factors of infertility in men

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Background: Infertility is one of the most important problems for couples. This is despite the fact that half of all cases of infertility associated with men. The aim of this study was to evaluate risk factors for infertility in men.

Methods: In a systematic survey of the databases PubMed, Elsevier, Ovid, Clinical key, SID, IranMedex and etc. from 2005 to the present, the relevant articles were extracted and analyzed.

Result: The findings suggest that a history of groin hernia and varicocele disease leading to infertility. Long-term use of ranitidine and smoking, obesity and heavy physical labor are associated with male infertility. The results of recent studies show that long-term exposure to magnetic fields interferes with spermatogenesis and increases male infertility.

Conclusion: According to studies, it seems inguinal hernia and varicocele diagnosis and effective treatment of smoking cessation and obesity control besides lack of exposure to magnetic fields can reduce the risk of infertility in men.

Keywords: Men, Risk factors, Spermatogenesis, Infertility

P159: Abortion laws: from the viewpoint of Islam

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Background: Abortion is one of the most complex problems of medicine, ethics and law. The aim of this research was to study Islam's view on abortion.

Methods: In a systematic survey of the databases PubMed, Elsevier, Ovid, Clinical key, SID, IranMedex and related texts from 2005 to the present, the relevant articles were extracted and analyzed.

Result: There are four ethical approaches toward abortion. Conservative approach: counts abortion as murder and immoral. Liberal approach: emphasizes on women's freedom and considers mother to have the right to choose abortion as a private affair. Moderate approach: according to the growth of the fetus, considers abortion a personal choice till a specified time and then an immoral practice. Feminist approach: in some cases, with the vast persuasion and differs with results of the three approaches. But, Islam prohibits abortion in any case except in certain cases such as the death of the fetus, the risk of maternal death, injury risk to maternal health.

Conclusion: From the viewpoint of Islam, abortion is absolutely prohibited except in cases of exceptions. With regard to these standards, we can reduce parent's confusion and help them to do the right thing.

Keywords: Islamic law, Religion, Abortion

P160: Investigation the effect of Achillea millefolium inflorescences extract on DNA damage of sperms in cyclophosphamide treated mice

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Background: Apart from being an immunosuppressant agent, cyclophosphamide (CYP) has been known to induce oxidative stress, impact on gonadal cells' DNA and reduce the fertilizing potential. Therefore, the present study was aimed to evaluate the effects of hydro-alcoholic extract of Achillea millefolium inflorescences (AMI), as a potential antioxidant on DNA damage in CYP treated mice.

Methods: Thirty male adult NMRI mice were randomly arranged into 5 groups. Group 1 received normal saline (0.1 ml/kg), group 2 received CYP alone (5mg/kg), group 3 received CYP (5mg/kg) + hydro-alcoholic extract of AMI (75mg/kg). Group 4 received CYP (5mg/kg) + hydro-alcoholic extract of AMI (150mg/kg) and Group 5 received CYP (5mg/kg) + hydro-alcoholic extract of AMI (300mg/kg). Treatments were continued for 35 days. At the end, after mice euthanization by cervical dislocation, Caudaepididymis were used to collect sperm cells and rate of DNA damage were examined by Acridine Orange Staining. Statistical analyses were performed using ANOVA and Tukey test.

Result: In group 2, the DNA damage significantly increased compared to control group (p

Conclusion: These findings indicated that AMI (low dose) has protective effect against CYP-induced toxicity in CYP treated mice probably by decreasing oxidative stresses. But, high dose of AMI caused increase toxicity of CYP.

Keywords: Acridine orange, Cyclophosphamide, DNA damage, Mice, Achillea millefolium

P161: The effects of Achillea millefolium inflorescences extract on apoptotic changes in mice

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Background: Achillea millefolium inflorescences (AMI) is one of the oldest and most well-known medicinal plants with potential antioxidant properties. The present study was aimed to evaluate the effects of hydro-alcoholic extract of AMI in three different doses on apoptotic changes using Annexin V–binding method for the detection of membrane phosphatidylserine translocation.

Methods: Twenty four male adult NMRI mice, aged 6-8 weeks, were randomly arranged into 4 groups. Group 1 received normal saline (0.1 ml/kg), group 2 received extract of AMI (75 mg/kg). Group 3 received extract of AMI (150 mg/kg). Group 4 received extract of AMI (300 mg/kg). Treatments were continued for 35 days. At the end, after mice euthanization by cervical dislocation, Caudaepididymis were used to collect sperm cells and rate of Annexin V-positive (ANV+) cells were examined by Annexin V Staining. Statistical analyses were performed using ANOVA and Tukey test.

Result: In the groups receiving low and medium doses of AMI, rate of Annexin V-positive (ANV+) cells was reduced, but not significantly compared to the control group. But, high dose of extract significantly increased apoptosis in comparison with that of control group (P

Conclusion: In this study, AMI has dose-dependent manner, so that at low and medium doses did not reveal significant effect, but high-dose of AMI caused a significantly remarkable increase in rate of Annexin V-positive (ANV+) cells.

Keywords: Annexin V, Antioxidant, Apoptotic changes, Mice, Achillea millefolium

P162: The effect of vitamin E(VE) on in vitro fertilization (IVF) in oxidative stress induced by nonylphenol

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3-

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Background: Infertility is a sad reality and it is now evident that several aspects of male reproductive health have changed for the worse over the past 30–50 years. Nonylphenol (NP), an environmental toxicant with oestrogenic properties, was tested for its effect on male fertility potential.

Methods: In this present experimental study, 30 adult male mice (6-8 weeks) were randomly divided into three groups including control and test groups. The control group received corn oil orally and the test groups were treated with NP (225mg/kg), NP+vit¬E (325 mg/kg) for 35 consecutive days orally by gavages. After 35 days, all animals were sacrificed. Then, sperm samples were collected from caudal epididymis in order to evaluate the sperm parameters and in vitro fertilizing (IVF) analyses. Then, sperm count, viability, and motility were determined.

Result: The NP-treated animals showed significant changes in all parameters of sperm quality compared to the control group (p

Conclusion: NP destroys the sperm fertiliry in adult rats by inducing oxidative stress, and this damage could be partially reversed by VE.

Keywords: Embryo , Fertilization, Vitamin E, Sperm

P163: Efficacy of auricular therapy for endometriosis: a review study

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Background: Endometriosis is a chronic disease characterized by pelvic pain and infertility. Pain is a highly prevalent and costly health problem. Auricular therapy is one form of acupuncture and a well-recognized element of traditional Chinese medicine (TCM). This review study was conducted with the aim of summarizing the related studies and try to identify therapeutic efficacy and mechanisms based on some clinical and experimental studies.

Methods: In this study, all abstracts and full papers through electronic searches by entering the keyword in the databases PubMed, Science Direct, Google Scholar, and Google were obtained and reviewed from 2000 to 2015 . The experimental group usually received auricular acupressure applied to six true acupoints (shenmen, Kidney, Liver, Internal Genitals, Central Rim, and Endocrine).

Result: Rare studies have been conducted in this field. More studies were related to dysmenorrhea and pelvic pain. The World Health Organization considers auricular therapy as a form of microacupuncture that can affect the whole body. Auricular therapy involves the relationships among the ear, energy lines (channels and meridians), and muscle regions comprising the whole body, according to a theory known as somatic reflexology. This theory posits that when a symptom or disease arises in the body, it is projected onto the ear at a regular and measurable zone.The TCM model views disease as being caused by the imbalance of a person's energy or qi. The stimulation of auricular acupoints is, thus, intended to regulate qi, activate the meridians and collateral systems, and balance the qi aspects of yin and yang and, in so doing, has been successful in treating a variety of health problems, including pain. Auricular acupressure effectively increases parasympathetic activity to maintain autonomic function homeostasis in young women with primary dysmenorrhea and may have a value in

alleviating menstrual pain and menstrual distress in a high-stress life.

Conclusion: Auricular acupoint therapy can be used as daily care treatment for EM, which is a convenient method to improve the patient's quality of life. Auricular acupressure could relieve uterine smooth muscle spasm through meridian induction and neurotransmission, reducing the secretion of serum PGE 2.

Keywords: Endometriosis, Pain, Auricular therapy

P164: Chinese herbal therapy for endometriosis: a review study

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Background: Endometriosis is one of the most common benign disorders and affects 6–10% of women of reproductive age and causing menstrual and pelvic pain, as well as infertility, resulting in a limited quality of life. This review study was conducted with aim of summarizing related studies and try to identify therapeutic efficacy and mechanisms based on some clinical and experimental studies.

Methods: In this study, all abstracts and full papers were obtained and studied through electronic searches by entering the keyword in the databases PubMed, Science Direct, Google Scholar, and Google from 2000 to 2015.

Result: There are several common decoctions used to treat EM in China, including Xuefu Zhuyu decoction (XZD), Xiaochaihu decoction (XCHD), Qu Yi Kang (QYK), Yi Wei Ning (YWN), Yi Wei San (YWS), and Huoxue Xiaoyi decoction (HXD). XZD originated from 19th century in China and have been widely used to treat EM since 1983 that respectively, mentioned. Therapeutic effects and actions of them are to alleviate dysmenorrhoea, shrink endometriotic lesion and promote pregnancy in human study for XZD, COX-2↓ P450arom↓ Estradiol↓ IL-8↓ TNF- ↓ MVD↓ VEGF↓ Fas protein↑ apoptosis↑ in ectopic endometrial tissues in animal study(Rat) for XCHD, TXB2↓ IL-2↓, IL-6↓ VEGF↓ ER↓ animal study(Rat) for QYK, Dysmenorrhoea alleviation and Shrink endometriotic lesion in Human study and Fas/FasL↑ Bcl-2↓ Bax↑ apoptosis↑ COX-2↓ in ectopic endometrial tissues in animal study (Rat, Wistar) for YWN, 6-keto-PGF l TXB2↓ Blood rheology↑ Vasoactive substances in animal study (Rabbit) for YWS, ICAM-1↓ MMP-9↓ VEGF↓ AAA pathway↓ Recurrence rate↓ in animal study (Rat) for HXD,

Conclusion: The results provide an evidence that herbal mixture may effectively modulate the progress of EM, however, by shrinking the lesions, suppressing the symptoms, and decreasing the recurrence rate.

Keywords: Endometriosis, Treatment, Herbal mixture

P165: Efficacy of omega-3 in the treatment of polycystic ovary syndrome

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Background: Polycystic ovary syndrome (PCOS) is a multifactorial, metabolic disorder.Its characteristics are chronic anovulation, polycystic ovaries and hyperandrogenism. This review study was conducted with aim of summarizing related studies with effect of omega-3 supplementation on androgen status, insulin resistance and levels of Leptin, and anthropometric indices in women with PCOS.

Methods: In this study, all abstracts and full papers were obtained and studied through electronic searches by entering the keyword in the databases PubMed, Science Direct, Google Scholar, and Google in the period 2010-2015 .

Result: The literature review indicates benefits on total testosterone with the use of omega-3 PUFA supplements on PCOS patients. Moreover, omega-3 supplementation reduces leptin when used for non obese subjects.Omega-3 supplementation could reduce serum concentrations of testosterone and regulate menstrual cycle without significant effect on SHBG

and FAI. The dose range for omega3 supplement was 1.2g to 3.6g and the duration of follow-up was from 6 to 8 weeks. There was no significant effect of omega-3 fatty acids supplements compared to placebo on insulin resistance and HOMA -IR in women with PCOS.

Conclusion: The results provide an evidence that supplementation with omega-3 fatty acids may not have a beneficial effect on improving insulin resistance in women with PCOS but could reduce serum concentrations of testosterone and leptin and regulate menstrual cycle. Furthermore, high-quality RCTs are required to definitively draw a causal interpretation of this finding.

Keywords: Ovarian function, PCOS, Omega-3

P166: Effects of myo-inositol on ovarian function and metabolic factors in women with PCOS

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Background: Polycystic ovary syndrome is the most common cause of chronic anovulation infertility in women in fertile period, myo-inositol (free of phosphate) was once considered a member of the vitamin B complex (formerly Vitamin B8); however, it is produced by the human body from glucose, it is not an essential nutrient. Myo-inositol is capable of improving the ovarian function and metabolism of polycystic ovary syndrome (PCOS) patients. this review study was conducted with aim of summarizing related studies with effect of myo-inositol supplementation on ovarian function in women with PCOS.

Methods: In this study, all abstracts and full papers through electronic searches by entering the keyword in the databases PubMed, Science Direct, Google Scholar, and Google were obtained and studied from 2010 to 2015 .

Result: The literature review indicates treating women with myo-inositol (2 grams daily for 8-24 weeks) has been shown to reduce LH/FSH ratio, FSH, prolactin, androstenedione, testosterone, insulin, and BMI, moreover it helps ovulatory function restoration, lower blood pressure, and decreases triglyceride levels. Myo-inositol is a safe and effective natural medicine for improving insulin resistance and it should be recommended in conjunction with other positive lifestyle modifications for the management of PCOS and insulin resistance.

Conclusion: Myo-inositol is a simple and safe treatment that is capable of restoring spontaneous ovarian activity and consequently fertility in most patients with PCOS. This therapy did not cause multiple pregnancy.

Keywords: Ovarian function, PCOS, Myo-inositol

P167: Therapeutic effects of vitamin D supplementation on PCOS

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Background: Women with polycystic ovary syndrome (PCOS) frequently suffer from metabolic disturbances including insulin resistance (IR), which might be related to vitamin D metabolism. This review study was conducted with aim of summarizing related studies with effect of vitamin D supplementation on insulin resistance in women with PCOS and a vitamin D deficiency

Methods: In this study, all abstracts and full papers through electronic searches by entering the keyword in the databases PubMed, Science Direct, Google Scholar, and Google were obtained and studied from 2000 to 2015 .

Result: The literature review indicates negative correlations of 25(OH)D levels with BMI, waist circumference, waist-to-hip ratio, systolic and diastolic blood pressure, fasting and stimulated glucose, area under the glucose response curve, fasting insulin,

HOMA-IR, HOMA-β, triglycerides, and quotient total cholesterol/high-density lipoprotein (HDL) and positive correlations of 25(OH)D levels with QUICKI and HDL. PCOS women with the metabolic syndrom had lower 25(OH)D levels (

Conclusion: The results of this study, low 25(OH)D levels are associated with features of the metabolic syndrom in PCOS women. Treatment with the vitamin D3 could be of value in the management of PCOS.

Keywords: Metabolic syndrom, PCOS, Vitamin D

P168: Exploring meanings and constructs of reproductive healthcare needs of Iranian adult men regarding sexual transmitted diseases and HIV/AIDS:A qualitative study

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Corresponding Author: *Men, Needs, Reproductive healthcare needs, Sexual transmitted diseases, AIDS.*

Background: Adult men in Iran have so many unmet needs in reproductive and sexual health. Sexual Transmitted Diseases and HIV/AIDS issues and characteristics have not been studied enough in Iranian adult men. This mixed methods study aimed to explore meanings and constructs of reproductive healthcare needs of Iranian adult men regarding sexual transmitted diseases and HIV/AIDS and to develop an appropriate instrument for reproductive health need assessment.

Methods: This study was a sequential exploratory mixed methods research. The qualitative phase was a qualitative content analysis in which data were collected through individual in-depth semi-structured interviews with 40 participants who were purposefully selected in 2015 in Tehran and Mashhad, Iran. A content analysis approach was used to explore the concept of healthcare needs. Then a 80-item instrument was developed using literature review and qualitative analysis. In the quantitative phase, the psychometric properties, including content, face and construct validity (exploratory) methods were done. For reliability of the instrument, internal consistency and test-retest, were applied.

Result: Qualitative findings revealed "men's educational empowerment" as core of men's reproductive healthcare needs. Other Constructs were: "appropriate sociocultural background with advocacy"," sexual ethics, religious doctrine and women's empowerment", and "meeting men's preventive, caring and welfare needs". Using the face, content validity index and the content validity ratio, twenty-two questions were deleted and the items decreased to 58 ones. Exploratory factor analysis was used to assess construct validity and identified five factors with five constructs explaining 42 percent of the variance. The reliability and consistency of the instrument were built up with the Cronbach's alpha coefficient (0.88) for the whole scale and test-retest reliability with a 2 week-interim Intraclass Correlation Coefficient (ICC=0.98, p

Conclusion: Since men's reproductive health is intertwined with public health, data collected regarding men's healthcare needs with the consideration of social and cultural factors can be used for designing strategies for reducing the incidence/prevalence rates of STDs and HIV/AIDS. The "Reproductive Healthcare Need Assessment related to HIV/AIDS in Iranian Adult Men" instrument with five dimensions and 43 items is a valid and reliable instrument for using in the adult men.

Keywords: AIDS, Needs, Reproductive healthcare needs, Sexual transmitted diseases, Men

P169: What can beberine do as an antioxidant against varicocele-induced renewal arrest? Correlation with TNFα, IL6, redox enzymes and cell renewal

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Background: Varicocele (VCL), as main male-related fertility problem, adversely affects the spermatogenesis and testicular endocrine status, inflicts inflammation and severely reduces sperm volume and quality. The interleukin-6 (IL6) and tumor necrosis factor-α (TNFα) are reported to result in spermatogonial stem cell (SSCs) arrest. On the other hand, the Glial-cell-line-derived neurotrophic factor (GDNF) and its special receptor Gfrα1, C-Ret, Bcl-6b have been illustrated as inflictors of the SSCs renewal process. Considering the impressive role of oxidative stress in triggering the inflammation and spermatogenesis cycle arrest, present study was conducted to investigate the berberine, potential antioxidant agent against VCL-induced derangements.

Methods: Thirty mature male Wistar rats were randomly divided into control (NO: 6 rats), control-sham (NO: 6 rats) and experimental groups (NO: 18 rats). The animals in experimental groups were undergone experimental varicocele and simple laparatomy was conducted in control-sham group. The experimental group subdivided into: Non-treated VCL-induced, 50 mg/kg and 100 mg/kg berberine-treated groups. The mRNA and protein levels of GDNF, Gfrα1, C-Ret and Bcl-6b were evaluated by using RT-PCR and western blotting techniques, respectively. Moreover, the testicular IL-6, TNFα, glutathione peroxidase (GSH-px), superoxide dismutase (SOD) and total antioxidant capacity (TAC) levels were assessed.

Result: Observations showed that, the berberine significantly (P

Conclusion: Considering these findings, berberine, by up-regulating the antioxidant status, diminishing the IL-6 and TNFα content of testicles, and by promoting the expression of renewal machinery genes/proteins remarkably ameliorates the VCL-related SCCs renewal arrest.

Keywords: IL-6, Oxidative stress, SCCs renewal, TNFα, Varicocele

P170: Improver effect of berberine on sperm parameters in experimental varicocele

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Background: According to clinical reports, varicocele is observed in 10-20% of the male population, 35-40% of males with primary infertility problems, and up to 80% of men with secondary infertility. Varicocele causes abnormalities in sperm count, motility, morphology and sperm viability. Sperm DNA damage increases in varicocele. The present study was done in order to evaluate the ameliorative effect of berberine on sperm parameters in experimental varicocele.

Methods: Thirty mature male Wistar rats were randomly divided into control (NO: 6 rats), control-sham (NO: 6 rats) and experimental groups (NO: 18 rats). The animals in experimental groups were undergone experimental varicocele and simple laparatomy was conducted in control-sham group. The experimental group subdivided into: Non-treated VCL-induced, 50 mg/kg and 100 mg/kg berberine-treated groups. Sperm parameters were evaluated in all groups. Left caudal epididymis were carefully dissected free from the testis and minced in 5 mL of Ham's F10 at 37˚C medium for 30 min. The grinded epididymal tissue was separated from the released spermatozoa and counted. In order to evaluate the sperm motility, the WHO [1999] standard method for manual examination of sperm motility was used. Smears were prepared by eosin- negrosin to evaluate dead, abnormal and morphologically immature sperm (MIS).For evaluation of sperm DNA fragmentation, Acridine orange staining was used and analyzed by Epi-fluorescent microscope.

Result: Observations revealed a significant (P

Conclusion: According to our finding, Berberin by increasing in sperm parameters and decreasing in DNA sperm damage, reduces the harmful effects of varicocele on sperm parameters.

Keywords: Berberine, DNA damage, Sperm parameters, Varicocele

P171: Test the association between gene polymorphism CPEB1 and CPEB2 risk men with azoospermia / oligospermia

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Background: Infertility as the inability to conceive after one year of regular intercourse without using contraception is defined. Infertility is not just a dependent agent and many factors involved in it. 15 percent of couples suffer infertility problems that among them about 35 percent of infertility is due to male factors. CPEB gene mRNA sequences that code for specific proteins in the growth, health, disease control involved.Studies have shown that the presence of CPEB SNP in the gene cause changes in miRNA binding sites and increased risks of genetically complex diseases such as idiopathic infertility in men.

Methods: This study is a case-control study (Case-Control) on 100 blood samples of oligo / azoospermia and 100 blood samples of healthy men (have children with no problem and no family history of infertility) .Of each blood sample, 5ml environmental and genomic DNA will be extracted using Salting-out method.

Result: Density of the obtained genotype polymorphisms in both patients and controls showed no significant difference (P = 0/422). A significant difference was seen in age between the genotypes (P = 0/19) and slow the disease progression (P = 0/65).

Conclusion: Considering the role and impact of infertility and infertility genes CPEB1 and CPEB2, the review of other factors is also recommended .

Keywords: Azoospermia, CPEB2 , Oligospermia, CPEB1

P172: The effects of long-term cyclophosphamide administration on sperm chromatin quality and apoptosis in rat testicular tissue

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Background: Cyclophosphamide (CP) as an anticancer alkylating agent has been known which leads to diminished sperm via interference in spermatogenesis process that can cause infertility. In this context, we have studied the effect of cyclophosphamide on male reproductive organ's weight, sperm chromatin quality and apoptosis in rat testis.

Methods: Twenty healthy mature male rats were randomly divided into two control and treatment group. Control group received normal saline (0.5 ml/week, IP) and CP was intraperitoneally injected to the treatment group (60 mg/kg/week, IP) for 56 days. At the end of the treatment period, sperm DNA damage (Acridine orange staining), sperm maturity (Aniline blue staining) and apoptosis of testicular germinal cells were evaluated by the transferase dUTP nick end labeling (TUNEL) assay.

Result: Results showed significant decrease of reproductive organ's weight and sperm chromatin quality in CP group in comparison with control group (P

Conclusion: Findings in the present study strongly showed that long-term administration of CP could induce apoptotic changes in the testis and affect sperm quality that could lead to infertility.

Keywords: Apoptosis, Infertility, Sperm, Testes, Cyclophosphamide

P173: The effect of FSH on gene expression of niche factors regulating calf spermatogonial stem cell during in vitro culture

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Background: Spermatogonial stem cells (SSCs) are undifferentiated cells which are highly reproducible and expandable. Several studies have been conducted to reproduce these cells in culture. They used growth factors, hormones and different feeder cells to improve survival and proliferation of SSCs. This study was conducted to evaluate the effects of FSH on gene expression of growth factors FGF2 and GDNF in Sertoli cells.

Methods: Sertoli cells and SSCs were isolated from 3-5 month-old calves.Bovine testicular cells were cultured for 15 days with or without FSH. Identification of these cells was confirmed by immunocytochemistry analysis.The gene expression of FGF2, GDNF and the gene markers bcl6b, thy-1 and C-kit was evaluated using quantitative RT-PCR technique.

Result: FSH influenced receptors of Sertoli cells which consequently increased expression of SSC self-renewal markers but repressed expression of SSCs differentiation marker. Moreover, culture with FSH led to grater expression of GDNF and FGF2.

Conclusion: The results showed that FSH can increase the self-renewal of SSCs in vitro via upregulation of GDNF and FGF2 expression in Sertoli cells.

Keywords: FSH, Gene expression, SSCs, Calves

P174: The role of nutrition and eating habits on IVF success from the perspective of Iranian traditional medicine

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Background: In vitro fertilization (IVF) plays an important role in the treatment of infertility. The probability of pregnancy after IVF is about% 25-%30. This variety depends on age, body mass index, and lifestyle such as eating, menstrual status and obstetric history. Recognition factors related to the IVF success rate can play an important role in increasing the incidence of pregnancies. Several guidelines were expressed to keep pregnancy from the perspective of Iranian traditional medicine . The aim of this study was to Introduce guidelines and strategies to maintain pregnancy from the view of Iranian traditional medicine.

Methods: This study is descriptive review. The debate were collected and classified about strategies to preserve pregnancy from authoritative traditional medicine books such as Qanun fi al-Teb, Exire Azam, Kholase al hekma, Zakhireye Kharazmshahi and other sources .

Result: From traditional medicine experts' viewpoints, in pregnancy some useful recommendations on the principles of nutrition and regimen have been proposed such as consumption of meals with high nutritional value in low volume, chewing food completely, observing time interval of food intake, having enough sleep, exercise and consumption of drinks. Also some regimens include stop overeating and starvation, avoiding the use of foods with pepper and bitter.

Conclusion: The formation of the embryo and fetal development from the mother's body is the most important periods of human life. Observing the food and eating habits according to the teachings of traditional medicine can increase the success rate of IVF and maintain pregnancy.

Keywords: Iranian traditional Medicine, IVF, Nutrition

P175: Protective effect of L- carnitine on testis in ciprofloxacine treated adult mice

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2-
3-

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Background: Ciprofloxacin is a commonly prescribed antibiotic in the treatment of many infections for long time. The aim of the present study was to investigate the effect of L-carnitine administration on physiology and testicular structure in ciprofloxacine treated adult mice.

Methods: Twenty adult male mice NMRI were divided into four groups (n=5); control group received normal saline, we subdivided the test group into, 12.5 mg/kg ciprofloxacin, 100 mg/kg L- carnitine , 100 mg/kg L- carnitine + 12.5 mg/kg ciprofloxacin, treated (i.p) for 15 days. Body and testes weighed, sperm parameter and histological structures were measured in groups.

Result: Ciprofloxacin significantly decreased the diameter and lumen of the seminiferous tubule, weight testis, number of spermatocyte, round and along spermatid , sperm count, viability, motility compared with the control group($p \leq 0.05$), an it significantly increased the diameter seminiferous tubule, weight testis, number of round and along spermatid, sperm count, viability, motility, compared to L- carnitine + ciprofloxacin with ciprofloxacin group($p \leq 0.05$).

Conclusion: It is concluded that L- carnitine administration cause an improvement in gonadotoxic ciprofloxacin effects , spermatogenesis and become sperm parameters in adult Mice.

Keywords: Ciprofloxacin, L- Carnitine, Sperm parameters, Spermatogenesis, Testis

P176: Testiculo-protective effects of nanocurcumin in oxymetholone-treated mice

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Background: Anabolic-androgenic steroids such as oxymetholone (OXM) have negative impacts on male endocrinological system and reproductive performances. The aim of present study was to examine the possible protective effects of nanocurcumin (NAC) administration against OXM-induced spermatogenesis impairment in mice.

Methods: Twenty adult male mice were randomly allocated into 4 equal groups including control, OXM (5 mg/kg; PO), NAC (15 mg/kg; PO) and OXM+NAC. Histopathological analyses were determined to monitor the spermatogenesis in the testicular tissue after 5 weeks.

Result: Oxymetholone-treated mice showed significant reductions in spermiation, tubule differentiation, miotic and repopulation indices as well as germinal epithelium height and seminiferous tubules diameter. Moreover, significant decline in the number of Leydig cells along with drastic morphological alterations in testicular tissue were observed in OXM-received mice. Noticeably, NAC co-treatment attenuated OXM-related degenerative changes in mouse testicular tissue.

Conclusion: These results indicated that NAC can reduce OXM-induced testicular damages and spermatogenesis disturbances in mice.

Keywords: Curcumin, Histology, Mouse, Testis, Oxymetholone

P177: Nanocurcumin as a promising agent for diminution of oxymetholone induced reprotoxicity in mice

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Background: Oxymetholone (OXM) as an active nutritional 17α-alkylated anabolic-androgenic steroid has been reported to induce spermatogenic arrest. The aim of this study was to explore the effects of nanocurcumin (NAC) administration on epididymal sperm fertilizing potential and subsequent embryo development following OXM treatment in mice.

Methods: Adult male mice were randomly divided into 4 equal groups including control, OXM (5 mg/kg; PO), NAC (15 mg/kg; PO) and OXM+NAC. Epididymal sperm fertilizing capability and following in vitro embryo development were analyzed after 35 days.

Result: Oxymetholone therapy resulted in remarkable reductions in fertilization, two-cell embryos, blastocysts and hatching rates. Interestingly, NAC co-administration led to significant improvements in above-noted parameters.

Conclusion: These findings suggested that NAC can be a promising agent for reduction of OXM-induced reproductive side effects. However, more researches are required in order to propose NAC as a safe reproprotective compound in humans.

Keywords: Curcumin, Embryology, Fertility, Mouse, Oxymetholone

P178: Effect of semen pH on sperm morphology, motility and concentration in infertile men

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Background: The prevalence of infertility is approximately 15% of reproductive-aged couples in worldwide. The cause of 50% infertility cases in couples is male factor problems such as sperm abnormalities, varicocele, immunologic factors causing antisperm antibody formation, ejaculatory duct obstruction and hormonal imbalance. Seminal plasma is microenvironment of sperm which contain mixture of secretions from the testes, epididymides and bulbourethral glands. The pH of semen reflects the balance between the pH values of the various accessory gland secretion which are mainly the alkaline seminal vesicular secretion and the acidic prostatic secretion. According to WHO standard criteria 2010 PH value 7.2 is as a lower threshold value.

Methods: All men referred to Infertility Treatment Center of Besat Hospital for semen analyais attending in this study, with a mean age of 27.54 ± 3.98. The semen samples were obtained by masturbation after at least 2-7days of abstinence. In each sample, PH value and sperm parameter were evaluated according to WHO standards. The parameters compared with the pH values.

Result: The study showed that all semen samples were in the PH range 5-8. 50% samples were in the pH range 7-8, 36% samples were in pH range 6-7, 12% samples were in acidic pH range and 2% samples were in alkaline pH range. Sperm morphology, sperm motility and sperm concentration of the semen samples acidic PH range 5-6 were significantly reduced as compared to the semen samples with pH range 7-8 P

Conclusion: The current study suggested that declined PH of semen can directly affect on sperm parameters. Therefore, this results may provide new approaches to treatment of male infertility.

Keywords: Male infertility, Semen PH, Sperm concentration, Sperm morphology, Sperm motility

P179: Novel scaffold fabricated from electrospun polyvinyl alcohol/ human serum albumin / gelatin nanofibers for culturing testicular cells of azoospermic patients

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Background: Tissue engineering could be the choice method for improvement of fertility preservation in some male infertility situations. One of the important principles in tissue engineering is using biocompatible and biodegradable materials for fabricating scaffolds. The natural polymers like albumin as the most abundant protein in the mammalian blood have a respectable ability to promote cell adhesion as an extracellular matrix (ECM) component. We designed electrospun scaffolds from polyvinyl alcohol/ human serum albumin/ gelatin (PVA/HSA/gelatin), for culturing human testicular cells (hTC) from testicular sperm extraction (TESE) samples.

Methods: The hTCs were isolated from three non-obstructive azoospermic TESE samples after obtaining signed informed consent. After enzymatic cell isolation and following five passages, the hTCs were plated onto the electrospun PVA/HSA/gelatin nanofiber scaffolds. Scanning electron microscopy (SEM) was done before and after the 3D cell culture. Cell viability was assessed by MTT assay at days 7 and 14. To investigate the homing of the hTCs within the nanofiber scaffolds, hematoxylin and eosin staining were done.

Result: The HTCs were successfully implanted on the electrospun PVA/HSA/gelatin nanofiber scaffolds. The MTT assay, staining and SEM studies suggested the presence, viability and proliferation of the hTCs within the scaffolds.

Conclusion: The electrospun PVA/HSA/gelatin nanofiber scaffolds can be used to improve preservation efficiency of male reproductive tissues in the future.

Keywords: Electrospinning, Nanofiber, Scaffold, Tissue engineering, Albumin

P180: The effect of platelet reach fibrin encapsulation on reducing apoptosis and oxidative damage in mice vitrified ovaries following autotransplantation

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Background: Cancer therapeutic agents are cytotoxics for germ cells, thus infertility is common among young cancer survivors. Ovarian transplantation is known to restore fertility but its major obstacles appear to be ischemia/reperfusion (IR) injury which leads to apoptosis. The aim of this study was to investigate the effects of ovarian tissue encapsulation in platelet reach fibrin (PRF) on apoptosis incidence and oxidative damage following ovarian autotransplantation in the gluteus superficial muscle.

Methods: NMRI mice (4-5 weeks age) were divided into three groups (n=6): control (freshly isolated ovaries), vitrified autografted(the ovarian tissue were encapsulated in PRF just before transplantation) and vitrified autografted +PRF. 7 days after ovarian

transplantation, the plasma concentrations of MDA and FRAP were measured and 28 days post transplantation, the apoptotic rate of follicles was also estimated. Data were analyzed using one-way ANOVA and Tukey's test and the means were considered significantly different at p

Result: The level of MDA significantly increased and the level of FRAP significantly decreased in the vitrified autografted group compared to the control. While the mentioned parameters were ameliorated to the control level in the vitrified autografted + PRF group. Apoptosis rate in the vitrified autografted+PRF group reduced significantly relative to the vitrified autografted group.

Conclusion: Ovarian tissue encapsulation in PRF reduces the oxidative stress and apoptosis; therefore it can be suggested as a new effective approach to ovary transplantation with fewer side effects.

Keywords: Ovary, Oxidative stress, Platelet reach fibrin, Vitrification, Transplantation

P181: Platelet reach fibrin scaffold causes reduction of inflammation and improves the endocrine function of autografted mice vitrified ovaries

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Background: Anticancer treatments damage the reproductive and endocrine functions of the ovaries. Ovarian transplantation is a promising approach to preserve fertility in cancer patients. Platelet reach fibrin (PRF) facilitates angiogenesis and decreases inflammation reducing post transplantation damage in the ovaries. The aim of this study was to investigate the effect of ovarian tissue encapsulation in PRF on the inflammation and endocrine function of mice vitrified autografted ovaries in the gluteus superficial muscle.

Methods: NMRI mice(4-5 weeks age) were divided into three groups(n=6): control (freshly isolated ovaries), vitrified autografted +PRF (ovaries were encapsulated in PRF just before transplantation), and vitrified autografted. 7 days after ovarian transplantation, the starting day of the estrous cycle was determined and 28 days following transplantation, the serum concentrations of progesterone, estradiol, TNFα, IL6 and IL-10 were measured. Data were analyzed using one-way ANOVA and Tukey's test and the means were considered significantly different at p

Result: The levels of estradiol and progesterone and IL10 decreased significantly in the vitrified autografted group compared to the control. While the above parameters increased significantly in the vitrified autografted + PRF group to the control level. The estrous cycle recovery rate, IL6 and TNFα levels also increased in vitrified autografted group compared to the control and decreased in the vitrified autografted + PRF group significantly to the control level.

Conclusion: Ovarian tissue encapsulation in PRF could effectively limit inflammation, improve restoring the endocrine function of autografted ovaries.

Keywords: Mice, Ovary, Platelet reach fibrin, Vitrification, Autotransplantation

P182: Investigate the relationship between nutrition and exercise on reproductive health in women 15-45 years

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Background: Physical activity is integral part of the physical and mental health. So, pay attention to women's sports as a major part of the body of society is essential considering their physiological needs and conditions. Considering the importance of reproductive health in women , this study aimed to investigate the relationship between nutrition and exercise on reproductive health in women 15-45 years old.

Methods: The method was to review articles in valid scientific database such as SID, PubMed, and etc.

Result: Lifestyle is one of the contributing factors that affects health. The health and development of a society to a great extent are based on women's health. Pregnancy and delivery have a significant impact on women's health and considered among national important health indices. In our country, more than 30 million women are in reproductive ages that form 24.4% of the total population of the country. The issue of underweight in women younger the ages and overweight is significantly increasing at the end of reproductive age that necessitates the need for special care on nutrition and education at this age. Disorders in maternal weight before pregnancy and during pregnancy have a significant impact on maternal and fetal complications in pregnancy.

Conclusion: The findings show many of women of reproductive age who are active in the community suffer from low back pain. Also, considering the prevalence of overweight among Iranian women, there is a significant weight difference in infertile women and normal women, so weight control should be more taken into account. Identifying risk factors and subsequently modification in the life styles and limit the risk factors could improve public health. According to the findings, on weak condition after exercise and moderate life style of individuals will contribute to the promotion of women‘s health during pregnancy and improve pregnancy outcomes. Training about healthy lifestyle in this period is recommended by healthcare providers. Therefore, it seems appropriate nutrition and exercise can have a role in prevention and treatment.

Keywords: Exercise , Nutrition , Women , 15 -45 years, Investigate , Relationship, Reproductive health

P183: The association of mass and individual sperm motility with abnormal sperm morphology

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Background: Sperm quality has an important role in determining fertility. Both sperm motility parameters and percent normal morphology are significant factors in predicting fertilization and pregnancy rates. Sperm motility is believed to be one of the most important parameters in evaluating the fertilizing ability of ejaculated sperm, and fertilization rates of human oocytes in vitro have been shown to correlate closely with sperm motility. The purpose of this study was to determine the relationship between the sperm motility and abnormal sperm morphology.

Methods: Testis samples were obtained from 45 rams. The viability and abnormal morphology parameters of the cauda epididymal sperm were assessed by means of the Eosin-Nigrosin stain method. The viability and sperm abnormalities were assessed by counting 300 sperm cells in a microscope at 1000× magnification, using immersion oil. The cauda epididymal sperm motility was assessed in a light microscopy at 400× magnification at 37ºC. A computer-assisted sperm motility analysis (CASA) was used to analyse sperm motility.

Result: According to the statistical analysis, significant correlations were found between coiled principal piece and end piece of tail and mass motility ($p<0.01$) and mass motility and individual motility ($p<0.01$). Also, significant positive correlation existed between live sperm and detached head ($p<0.01$), coiled principal piece and end piece of tail and coiled midpiece of tail ($p<0.01$), slender head and macro cephalic ($p<0.01$), pyriform head and twin head ($p<0.05$).

Conclusion: Observation of individual and mass motility and estimation of the percentage of progressively motile sperm will provide information about sperm membrane integrity, as well as the morphologic integrity of spermatozoa. In conclusion, in this study mass motility correlated significantly with coiled principal piece and end piece of tail and individual motility.

Keywords: Abnormal sperm morphology, Epididymal, Individual motility, Ram, Mass motility

P184: Relationship between body mass index before pregnancy with sexual function and marital satisfaction during pregnancy among women referred to Qaen health centers in 1395

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Background: This study aimed to determine the relationship between body mass index before pregnancy with marital satisfaction and sexual function in pregnant women referred to Qaen health centers in 1395.

Methods: This study is a descriptive-analysis with relative –correlative, that performed in 180 eligible pregnant women who referred to health centers of Qaen. Sampling was simple randomized. Data collected through interview and valid and reliable questionnaire of Enrich marital and FSFI sexual. Data analysis was performed using SPSS software version 20 and descriptive statistics (mean and standard deviation), T independent, ANOVA and Pearson correlation coefficient were used.

Result: The relationship between body mass index before pregnancy with marital satisfaction of pregnant women p = 0.923 and sexual function of pregnant women were not significant P = 0.076. The relationship between age and sexual function is significantly p = 0.000. The relationship between age and marital satisfaction is not significant p = 0.256, also between pregnancy weight gain with sexual function p = 0.134 and marital satisfaction was not significant p = 0.196.

Conclusion: Body mass index before pregnancy was not associated with marital satisfaction and sexual function during pregnancy and weight gain in pregnancy, sexual function and sexual satisfaction is more important. Marital satisfaction with previous pregnancy interval, spouse's education, number of living children and numbers of pregnancy has a significant relationship. Sexual function with previous pregnancy, spouse's education, number of children, age, education and number of abortions a woman has a significant relationship.

Keywords: Marital satisfaction, Pregnancy, Sexual function, Body mass index

P185: Effect of in vitro selenium supplementation on sperm quality in asthenoteratozoospermic men

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Background: Sperm DNA damage, excessive oxidative stress and decrease in motility may lead to low fertilization or poor assisted reproductive techniques outcomes in asthenoteratozoospermic men. Selenium considered as essential element for male reproductive functions. Selenium has important role in enzymatic process for elimination of excessive reactive oxygen species (ROS) and help in maintenance of membrane integrity. The aim of this study was to determine the effect of selenium supplementation on sperm quality, DNA fragmentation, mitochondrial membrane potential and membrane lipid peroxidation during sperm sampling in vitro at different times.

Methods: In this experimental study, semen samples collected from 30 asthenoteratozoospermic men. This study was approved by the local ethics committee. Samples divided into two groups as control and test group (incubated with 2µgmL-1 selenium at 37 ˚C for 2, 4 and 6 h). Motility and viability assessed as WHO 2010 criteria. Mitochondrial membrane potential (MMP), sperm DNA fragmentation (TUNEL) and malondialdehyde (MDA) levels were evaluated in each group. Data were analyzed using repeated measurement of ANOVA and T-test. The means were considered significantly different at P

Result: Results revealed that motility, viability and MMP were significantly higher in test group (p

Conclusion: In vitro selenium supplementation may protect spermatozoa from maltreatment effect of ROS during sperm sampling via keeping enzymatic and antioxidant process in optimum condition.

Keywords: Asthenoteratozoospermia, ROS, Sperm quality, Selenium

P186: In vitro effects of vitamin E on sperm DNA fragmentation, mitochondrial membrane potential and lipid peroxidation in asthenoteratozoospermic samples

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Background: In asthenoteratozoospermic men, low motility, defected DNA and highly oxidative stress in sperm cause poor assisted reproductive techniques (ART) outcomes. Vitamin E is one of the most important antioxidative molecules that combat oxidation and prevent oxidative stress. The aim of this study was to determine the effect of vitamin E on sperm quality at different times of in vitro incubation (after 2,4 and 6-h) to improve their semen samples for ART.

Methods: Asthenoteratozoospermia semen samples of 30 volunteers were collected in an ethical manner and examined. Each sample was divided into two groups of control and test. In test group, sample treated with 2mM vitamin E and incubated at 37 ˚C for 2, 4 and 6 h. After this incubation sperm motility, viability and plasma membrane integrity, mitochondrial membrane potential (MMP), sperm DNA fragmentation (Tunel and SCD) and malondialdehyde (MDA) levels were evaluated. Data were analyzed using repeated measurement of ANOVA and T-test. The means were considered significantly different at P

Result: Vitamin E significantly increased sperm motility, viability, plasma membrane integrity and MMP in asthenoteratozoospermia semen samples compared to untreated control group (P

Conclusion: In vitro supplementation of vitamin E in asthenoteratozoospermia semen samples can lead to improve sperm parameters, lipid peroxidation and DNA integrity

Keywords: Asthenoteratozoospermia, ROS, Sperm quality, Vitamin E

P187: Evaluation of -1575 G/A and -735 C/T variants of matrix metalloproteinase-2 (MMP-2) gene in Iranian women with endometriosis

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Background: Endometriosis is an estrogen-dependent inflammatory benign gynecological disease. Endometriosis has wide range of symptoms from asymptomatic to infertility. Pathogenesis of endometriosis is not clearly understood but there are some more accepted theories including retrograde menstruation, altered immunity, coelomic metaplasia and metastatic spread. Matrix metalloproteinases are zinc dependent proteolytic enzymes in which clear extracellular matrix. MMPs have controlling effects in major normal cellular functions and in tumor metastasis and invasion. Some MMPs level shows significant increase in endometriosis patients when compared with normal individuals. Overexpression of MMPs due to genetic polymorphisms in promoter region may be increase chance of endometriosis.

Methods: In this study, relation of -735 C/T (rs2285053) and -1575 G/A (rs243866) variants of MMP-2 gene with relevance of endometriosis were investigated for the first time. The PCR-RFLP method

was used for investigation of these variants in 100 endometriosis patients and 200 non-endometriosis samples from Iranian women. Total genomic DNA was extracted from blood samples and related DNA fragments were amplified using designated specific primers. Enzymatic digestion was performed using PagI and HinfI restriction enzymes for mentioned variants, respectively. Statistical analysis was ascertained using "SPSS 16" software.

Result: According to the results, in the 95% of confidence level (p

Conclusion: MMP-2 C-735T genotype may be associated with endometriosis in the Iranian population.

Keywords: Matrix metalloproteinase, MMP-2, PCR-RFLP, Polymorphism, Endometriosis

P188: Testosterone and normal cell line proliferation: dose dependent association

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Background: Cellular and molecular studies have shown that androgens play a considerable role in proliferation and differentiation of stem cells and cell lines. This in vitro experiment was exerted to determine the association of testosterone with normal embryonic kidney (HEK 293) cells proliferation in cell culture.

Methods: HEK 293 cells were obtained from Iran NCB. Cells were cultured in growth medium supplemented with 10% FBS and 1% antibiotics (penicillin/streptomycin) and randomly divided into control group (not exposed to testosterone) and groups exposed to 1, 10, 100 and 1000 µg/ml of testosterone. Cell viability was quantified by MTT assay. Statistical analysis was performed using ANOVA followed by post hoc Tukey's multiple comparisons test.

Result: HEK239 cells viability significantly increased in group exposed to 1 µg/ml and decreased in groups exposed to 100 and 1000 µg/ml of testosterone compared to control group (P

Conclusion: Our findings indicated that lower concentrations of testosterone increase normal cell line proliferation; however, higher concentrations of testosterone have cytotoxic effects on normal cell line resuting in decreased cell proliferation; according to which, it might be concluded that testosterone plays a significant role in stem cells proliferation.

Keywords: HEK 293, Proliferation, Stem cells, MTT assay, Testosterone

P189: The effect of two different combined antioxidants on the liquid storage of ram semen

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Background: Oxidative damage to spermatozoa during storage is a potential cause of the decline in motility and fertility during hypothermic storage of liquid semen. During the recent years, the use of herbal antioxidants has attracted the attantion of several researchers. In this regards, it is of great interest to note that two-thirds of the world's plant species have medicinal value; in particular, many medicinal plants have great antioxidant potential. The aim of this study was to determine the effects of the addition of the combined garlic extract (0, 1 and 1.5%) and stachys schtschegleevii (0, 4 and 6%) on quality of ghezel ram sperm during cooling preservation

Methods: A total of 20 ejaculates were collected from four ram (five ejaculates from each ram) twice a week during the breeding season using an artificial vagina. Immediately after semen collection, the ejaculates were evaluated for sperm motility; only ejaculates with

sperm motility over 80% were processed. The sperm motility, abnormal sperm, viability and the membrane integrity were determined during storage of semen at 4 ◦C for a period of 0, 6, 24 and 48 h of liquid storage, respectively.

Result: We could not detect significant changes in total and progressive motility, abnormal sperm, viability and the membrane integrity.

Conclusion: In conclusion, combined garlic extract and stachys schtschegleevii cannot improve the sperm quality during the liquid storage.

Keywords: Antioxidant, Oxidative damage, Sperm, Liquid storage

P190: Effects of garlic extract on ram semen after the freeze–thawing process

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Background: Antibiotics are used as a component of semen extenders, and presently there is great interest of using natural antibiotics rather than the synthetic antibiotics due to safety concerns. The aim of this study was to determine the effects of garlic extract added into ram semen extender on sperm parameters following the freeze/thawing process.

Methods: Twenty ejaculates obtained from four rams were pooled and diluted with lecithin Tris-based extenders containing 0, 0.5, 1 and 1.5 percent of garlic extract. After thawing, sperm motility (CASA), viability (eosin/nigrosin) and membrane integrity (HOS test), abnormal morphology, lipid peroxidation (MDA) were assessed.

Result: Garlic extract at dose of 1 % increased the percentages of sperm motility, compared to control following the freeze-thawing ($P < 0.05$). For kinematic parameters, no significant difference was observed among treatment. Extenders containing 0.5 and 1% garlic extract improved ($P < 0.05$) membrane integrity, viability compared and reduced lipid peroxidation (malondialdehyde concentration). At the abnormal morphology, the additives did not lead to the protective effect in comparison to control group.

Conclusion: Findings of this study showed that garlic extract supplementation in semen extenders was of greater benefit to sperm quality of frozen–thawed ram sperm.

Keywords: Lecithin, Lipid peroxidation, Ram sperm, Garlic extract

P191: Effect of the addition of lemon balm (Melissa officinalis) to ram semen extender for cryopreservation

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Background: During cryopreservation, oxidative stress exerts physical and chemical changes on sperm functionality. The main objective was to study the effects of the addition of lemon balm (Melissa officinalis) to ram semen extender for cryopreservation on sperm function.

Methods: Semen samples were collected from four ghezel rams by an artificial vagina twice a week. The ejaculates containing spermatozoa with >80% forward progressive motility and concentrations higher than 3 × 109 spermatozoa/ml were pooled and diluted in soy bean lecithin extender, with the addition of 0, 1.5, 3 and 6 mg/mL of lemon balm (Melissa officinalis). The diluted semen was cooled at 4 ◦C and loaded into the straw and then stored in liquid nitrogen. After thawing,

sperm motility and motion parameters were assessed using a CASA system. Sperm viability, membrane integrity and lipid peroxidation were assessed by eosin–nigrosin, HOST and MDA test, respectively.

Result: The extender supplemented with 3 mg/mL of lemon balm resulted in higher sperm motility and progressive ($p < 0.05$) in comparison to the control group. Also, addition of 1.5 and 3 mg/mL of lemon balm improved significantly viability after freeze–thaw. The supplementation of freezing extender with 3 mg/mL of lemon balm reduced sperm lipid peroxidation.

Conclusion: In conclusion, the results of the present study demonstrate that addition of 3 mg/mL of lemon balm have beneficial effect on quality of post-thawed ram semen.

Keywords: Oxidative stress, Sperm motility, Lemon balm (Melissa officinalis)

P192: Stachys schtschegleevii improves the post-thawed ghezel ram sperm parameters

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Background: High levels of reactive oxygen species (ROS) relating to reduced semen quality, are detected during semen cryopreservation in some species. Although Stachys chtschegleevii was reported to play an important role as in vitro free radical scavengers and could be used as sources of natural antioxidants, there was no study about the cryoprotective effects of Stachys schtschegleevii on ram sperm freezing. The objective of this research was to evaluate the effects of different concentrations of Stachys schtschegleevii added to the freezing extenders on ram sperm motility, viability, abnormal morphology, membrane integrity and lipid peroxidation after thawing.

Methods: Semen ejaculates were collected with artificial vagina from four rams, mixed and divided into four equal fractions, and diluted with soybean lecithin extended containing 0 (control), 2, 4 and 6 percent of Stachys chtschegleevii extract. All diluted sperm suspensions were cooled to 4 °C for 2 h followed by loading into 0.25 ml French straws before being stored in liquid nitrogen.

Result: After thawing, CASA sperm motility was significantly higher ($P < 0.05$) in Stachys htschegleevii at 2 and 4 % levels than that in control group. Stachys chtschegleevii at 4 % level led to higher viability, membrane integrity and normal sperm morphology, compared to control groups. In addition, lipid peroxidation in group Stachys chtschegleevii 4 % were lower ($P < 0.05$) than those of control group.

Conclusion: In conclusion, findings of this study showed that Stachys chtschegleevii at 4 % supplementation in semen extenders provided a better protection of sperm parameters against cryopreservation injury.

Keywords: ROS, Sperm, Stachys chtschegleevii, Cryopreservation

P193: Long-term treatment with MWCNT impair sperm motility in mice: involvment of oxidative stress

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Background: Carbon nanotubes (CNTs) have been using extensively in medicine and industry. So, toxicity and risk assessment studies of these compounds are becoming increasingly important. Single-walled carbon nanotubes (SWCNTs) and multiwalled carbon nanotubes (MWCNTs) are the most wide investigated types of CNTs in nanotoxicology. Because of the vulnerability of the human male reproductive system to exogenous materials and the pivotal role of oxidative stress in reproductive toxicity, the present study was designed

to investigate the testicular toxicity of long-term treatment with MWCNTs in mice and evaluating the oxidative stress.

Methods: Adult male albino mice received 0.4 mg/ml carboxylated CNT (COOH-MWCNTs) intravenously once a week for 3 and 6 weeks (3 and 6 doses, respectively). Testicular toxicity was evaluated using counting motile and immotile sperms. Lipid peroxidation was evaluated in the testicular tissue homogenate by using thiobarbituric acid reactive substance (TBARS) formation. Meanwhile, mice were weighed regularly and assessed for behavioral changes.

Result: The motile sperms were significantly decreased in the mice received 6 doses of CNTs. Lipid peroxidation insignificantly and dose-dependently increased in the testicular tissues. No significant changes in the weight and behavior of COOH-MWCNTs treated mice were observed.

Conclusion: Lon-term exposure to COOH-MWCNTs may cause testicular toxicity through induction of oxidative stress.

Keywords: Mice, Oxidative stress, Spermatogenesis, Multi-walled carbon nanotube

P194: The role of vitamin D in PCOs

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Background: Vitamin D is essential for the proper functioning of human body and has association with fertility problems. PCOS is the most common endocrine disorder causing infertility that the causes are unknown but insulin resistance and obesity are related factors.

Methods: This review of the literature was conducted in PubMed, EMBASE and Cochrane Library for relevant english language publications until 2017.

Result: Studies show an association between low level of 25(OH)D3 and insulin resistance, but the mechanisms remain unknown. One theory relies on regulatory effect of vitamin D on intracellular and extracellular calcium level that is essential for insulin-mediated intracellular processes and may have impact on insulin secretion. Another hypothesis involves the stimulatory effect of vitamin D on insulin receptors leading to increase of insulin sensitivity.Finally,vitamin D influences the immune system and can cause a higher inflammatory response associated with insulin resistance. The association between vitamin D and obesity is demonstrated in PCOS women that can be a consequence of association between obesity and insulin resistance, correlated with decreased levels of vitamin D.Vitamin D deficiency is also related to an imbalance in hyperandrogenism markers.

Conclusion: Vitamin D is involved in the regulation of steroidogenesis of sex hormones and may have a regulatory role in several PCOS-associated symptoms,including ovulatory dysfunction,hyperandrogenism and insulin resistance.Studies in PCOS women showed that vitamin D did not improve metabolic parameters of insulin resistance and markers of hyperandrogenism. However, a causal link between vitamin D levels and the pathogenesis of PCOS is still missing and high quality large randomized clinical trials are needed to evaluate the effect of vitamin D supplementation on female fertility.

Keywords: Fertility, Polycystic ovary, Vitamin D

P195: The effect of l-carnitin on the histological changes in mice ovary following induction of polycystic ovary syndrome: a quantitative study

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Background: Polycystic ovary syndrome (PCOS) is characterized with hyperandrogenism, anovulation and insulin resistance, related to low levels of serum L-carnitine. The aim was to investigate the effect of L-carnitine on the mice ovary with PCOS stereologically.

Methods: PCOS was induced through daily injections of testosterone enanthate (1 mg/100g s.c. for 5 weeks). NMRI mice (3 weeks old) were divided into 4 groups (n=6): Control, PCOS, PCOS + L-carnitine and L-carnitine. Treatment was carried out with the dose of 500 mg/kg by i.p injections every other day for 4 weeks. The ovaries were then studied stereologically. Data were analyzed using one way ANOVA and Tukey's test and the means were considered significantly different at (p

Result: The total volume of ovary, the volume of cortex and the number of antral follicles reduced significantly in the PCOS group compared to the control, while these parameters significantly increased in the PCOS+L-carnitine group compared to the PCOS group. The number of primary and preantral follicles showed a significant increase in the PCOS group when compared to the control, but a significant reduction was found in the mentioned parameters in the PCOS+L-carnitine group. The volume of oocyte and the thickness of zona pellucida (ZP) in the preantral and antral follicles significantly increased in PCOS+L-carnitine group to the control level when compared to the PCOS group.

Conclusion: L-carnitine could prevent the undesired histological changes of ovary in mice with induced PCOS.

Keywords: L-carnitine, Mouse, Stereology, Polycystic ovary syndrome

P196: Fetus's cells living in the mother's brain

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Background: The starting relationship between mother and child is began during pregnancy when mother is every things for fetus. This connection is deeper than anyone thought. Some research's showed that mental and physical integration between mother and child during pregnancy is not only providing everything for the developing fetus. But, the maternal messages transmission are based on providing growth both physically and psychologically of her fetus.

Methods: This is a review article about fetus period.

Result: The link between mother and fetus is not only by placenta. But, it is the structure of fetal maternal transmission of all messages that provides both physical and psychological growth. Moreover, any kind of chemical changes in maternal blood will also transfer through the placenta as well. New research showed the mother's mental state is also important. If the mother is depressed, the developing brain of the fetus will find the same structure.

Conclusion: It is believed that the human fetus is an active and eager participant in its own development and is collecting information for life after birth," Sandman says. "It's preparing for life based on messages the mom is providing.

Keywords: Fetus, Mother, Brain Cell

P197: Investigating the influence of acupressure on anxiety and pregnancy rate among infertile women

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Background: Infertility as a negative event for couples, especially for women, is one of the major stressful events in personal life. Different factors such as age, infertility cause and duration, life style factors including socioeconomic and mental status are effective on treatments outcome. The aim of the present study was to determine the acupressure effect on anxiety and pregnancy rate in infertile women.

Methods: This study is a randomized controlled trial carried on infertile women undergoing ICSI treatment. It was performed at Milad IVF center, Mashhad University of Medical Sciences. 152 participants entered in the present study with inclusion criteria of women age between 20 to 45 years, Iranian native, female and/or male infertility, mild and/or moderate anxiety by using Beck anxiety inventory, and primary infertility. The subjects were randomly divided into three groups of real acupressure, sham acupressure and control. Data were analyzed through descriptive and analytic statistics. Level of significance was P

Result: There was a significant difference in anxiety reduction rate in all three groups. However, no significant difference was observed among three groups regarding clinical pregnancy rate.

Conclusion: Acupressure may be effective in reducing anxiety, but to assess the effect of acupressure on pregnancy rate, more research is needed.

Keywords: Anxiety, Infertility, Pregnancy rate, Women, Acupressure

P198: The study of anti-Mullerian hormone and adiponectin in polycystic ovarian syndrome

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Background: Polycystic ovary syndrome (PCOs) is the most common endocrine disorder in women of reproductive age with a prevalence of 4-18%. PCOs is one of the outstanding matters of endocrinological and gynecological investigation due to its complex pathogenesis and its multiple clinical expressions. The aim of this study was determination of anti-Mullerian hormone and adiponectin in PCOs.

Methods: To explore the possible roles of anti-Mullerian Hormone (AMH) and adiponectin in PCOs women, we review the available studies published until 2015. For this purpose, the articles in databases Pubmed and Google scholar in connection with the title of the study were searched.

Result: A number of studies show lower adiponectin levels and higher concentrations of AMH in PCOs women. Our review finding reveals that BMI increasing has direct effect on AMH and adiponectin levels. Insulin resistance plays an important role in increasing serum AMH in PCOs.

Conclusion: Serum AMH levels decline with obesity. Obesity is associated with reduced adiponectin levels. Low level of adiponection can be related to pathogenesis of PCOs and its related complications. Adiponectin may be a link between hormonal dysfunction of adipose tissue related to obesity and decreased AMH secretion.

Keywords: adiponectin, Polycystic ovarian syndrome, Anti-Mullerian hormone

P199: The effect of maternal atrazine exposure during pregnancy and lactation on their offspring testis apoptosis and protective effect of Crocin in Balb/C mouse

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Background: Atrazine as an herbicide is widely used in the world. It passes through the placenta and probably affects the spermatogenesis and induces apoptosis in testis. In other hand, Crocin as an antioxidant may play critical role to protect the atrazine-induced damage. The present study was done to evaluate the effect of atrazine in Balb/C mouse offspring testis apoptosis and protective effect of Crocin on atrazine-induced apoptosis.

Methods: A number of 24 pregnant Balb/C mice were randomly divided in to 4 groups: 1- Atrazine: the mice were received 10mg/kg Atrazine, 2- Atrazine- Crocin; were received 10mg/kg Atrazine and 10mg/kg crocin, 3- Crocin; were 10mg/kg crocin and 4- sham-control: were received normal saline. All the administrations were done via gavage from 6th day of pregnancy until to postnatal day 23. At the end, two male pups from each mother at 23 and 75 postnatal days were randomly selected, sacrificed and removed their testis for TUNEL staining. Finally, TUNEL positive cells were evaluated using stereological method and compared in all groups.

Result: In atrazine group, the mean number of spermatogenic apoptotic cells were increased in 23 day-old pups significantly (p

Conclusion: Maternal atrazine exposure during pregnancy and lactation may induce apoptosis in Balb/C mouse offspring spermatogenic cells.

Keywords: Apoptosis, Crocin, Spermatogenic cells, Atrazine

P200: Induction of spermatogenesis by grafting neonatal mouse testicular tissue into epididymal fat of castrated adult mouse

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Background: Testicular grafting has the potential to become a method to preserve fertility in prepubertal boys undergoing cancer treatment. In this study, spermatogenesis development was evaluated after graft of fresh neonatal mouse testicular tissue to epididymal fat of bilateral castrated adult mouse.

Methods: Three neonatal (3-5 days old) male mice as the donors and three adult (6-8 weeks old) male mice as the recipients were used. After bilaterally castration of recipient's mice, four pieces of fresh neonatal testis tissue fragments were grafted into recipient epididymal fat. Eight weeks after implantation, grafted testicular tissue was evaluated. Hematoxylin and eosin (H&E) staining were used to evaluate the morphology of seminiferous tubules. Real time PCR and immunohistochemistry staining were used to assess the germ cell development in grafted neonatal testis tissue. TUNEL assay was used for defining the apoptosis level of grafted tissue.

Result: Vascular anastomoses were seen at the graft site. At the time of grafting, spermatogonial cells were the only germ cells present in the seminiferous tubules. Eight weeks after implantation, histological, real-time RT-PCR and immunohistochemical analyses of the grafts showed different types of germ cells from spermatogonia up to the elongated spermatid. TUNEL assay showed no significant differences between control and experimental groups.

Conclusion: The previous studies showed the spermatogenesis arrest in meiosis process. Due to the appropriate hormonal and temperature conditions of epididymal fat, it seems immature testicular tissue grafting to epididymal fat may be a powerful site to support the spermatogenesis and may pave way for fertility preservation in prepubertal cancer patients.

Keywords: Epididymal fat, Graft, Testis tissue, Spermatogenesis

P201: Maternal atrazine exposure during pregnancy and lactation on their offspring semen parameter and protective effect of crocin in Balb/C mouse

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Background: Atrazine is one of the most widely used herbicide in the world. It passes through the placenta. In other hand, crocin as carotenoid is extracted from saffron. It has antioxidant effects. This study was designed to evaluate the effect of atrazine on semen parameters and protective effect of crocin on atrazine-induced alteration in Balb/C mouse offspring.

Methods: A number of 20 pregnant Balb/C mice were randomly divided in to 4 groups: 1- Atrazine: were received 10mg/kg Atrazine. 2- Atrazine- Crocin: were received 10mg/kg Atrazine and 10mg/kg crocin. 3- Crocin: were 10mg/kg crocin. 4- sham-control: were received normal saline. All the administrations were done via gavage from 6th day of pregnancy until to postnatal day 23. At the end, one male pup from each mother was randomly selected and removed their testis and epididymis. The weight and volume of testis were measured and then epididymis was cut in to small pieces and dunked to normal saline for sperm collection. Next, by using Neubauer chamber the number and morphology of the sperms were evaluated. Finally, weight and volume of testis and semen parameters were compared in all groups by means of SPSS statistical software.

Result: The results showed that the number of sperm was decreased in atrazine group comparing to other groups significantly (p

Conclusion: Maternal atrazine exposure during pregnancy and lactation may affect the semen parameter including number and morphology of sperm in their offspring.

Keywords: Crocin, Semen parameter, Sperm, Atrazine

P202: Omentin in obesity and pregnancy : a systematic review

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Background: Omentin is a good adipokine that plays a pleiotropic role in regulating the body metabolism. Omentin has an anti-inflamatory, antiatherogenic and insulin-sensitizing effect. Also, omentin plays a cardioprotective role. This review aims to summarize studies about omentin in pregnancy and obesity.

Methods: In this study, 130 articles through electronic search in databases Pubmed, Google, Google Scholar, Yahoo, Iran Medex, Science Direct, SID, were reviewed during the period 998-2016 .

Result: The Results showed that maternal omentin levels are higher in the first trimester compared to both the second trimester of pregnancy. The major source of maternal omentin is adipose tissue. Omentin is inversely correlated with BMI , total cholesterol, LDL cholesterol, triglycerides, obesity, insulin resistance and severity of preeclampsia. Omentin -1 (the most common form of circulating) is decreased in maternal plasma of pregnant women with pre-existing obesity. This adipokine plays a role in metabolic adaptation of normal gestation.

Conclusion: Studies have shown that maternal obesity has adverse effect on feto-placental vasculature. Lower maternal plasma of omentin in obese pregnant women may have long-term effects on fetal development and growth.

Keywords: Insulin resistance, Metabolic syndrome, Obesity, Pregnancy, Omentin

P203: A successful live birth 3 years after vitrification of oocytes and sperms

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Background: This study is based on a report that 3 years after vitrification of both oocytes and sperms in a couple diagnosed with infertility, a live birth occurred using their oocytes and sperms.

Methods: In 2011, a couple, female aged 37 and male aged 35 years old, referred to Shiraz Infertility Center. They were diagnosed with 18 months of infertility due to male factor. After ovarian stimulation with standard protocol, 12 oocytes were retrieved; but due to male partner inability to provide sperm sample, all oocytes got cryopreserved using a vitrification protocol. The male partner, diagnosed with varicocele at the time, underwent successful varicocelectomy operation. After varicocelectomy, his sperm samples got harvested and frozen as the female partner was unexpectedly diagnosed with MS at that point and wasn't ready for pregnancy.

Result: After remission of her MS, the frozen sperm samples and oocytes were thawed and ICSI process began. 83% out of 12 thawed oocytes survived and got inseminated by ICSI. 6 out of 10 oocytes got fertilized and developed into cleavage staged embryos. 3 of the embryos, that were in their 3rd day were transferred to the female partner uterus. At 7 weeks of gestation, a sonographic exam revealed one gestational sac with an alive fetus, and at 39 weeks of gestation, a normal female baby, weighing 3000 gr. was delivered.

Conclusion: Our case report suggests that cryopreservation of oocytes, sperms and embryos, individually or combined, can be used as a preferred solution to reserve fertility ability in patients require time for pregnancy preparations.

Keywords: Oocyte cryopreservation, Pregnancy, Sperm freezing, Vitrification, Live birth

P204: The effect of human chorionic gonadotropin (hCG) on sperm fertilization rate following IVF

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Background: The positive effect of human chorionic gonadotropin (hCG) on the sperm capacitation, presence of hCG in fallopian tube secretions and semen and presence of hCG receptor on rat sperm has been confirmed, therefore in this study the effect of hCG on the fertilization rate following IVF was investigated.

Methods: Given the results of our previous study on the hCG effect on the sperm motility, in this study, hCG with concentrations of 25 and 100 ng/ml was used in T6 medium for sperm capacitation with incubation time of 120 minutes. Then, 6 hours following IVF, the rate of fertilization was calculated with counting two pronuclei (2PN).

Result: The rate of fertilization increased significantly ($P \leq 0.05$) in hCG experimental group with concentration of 25 ng/ml compared to 100 ng/ml and it tended to be increased compared to control group. Also, the rate of fertilization decreased significantly ($P \leq 0.05$) in hCG experimental group with concentration of 100 ng/ml compared with control group.

Conclusion: The results of this study demonstrated that the effect of hCG hormone on the fertilization rate is dose-dependent, so that hCG with concentration of 25 ng/ml lead to an increase in sperm fertilization rate.

Keywords: Fertilization rate, In vitro fertilization (IVF), Sperm motility, Human chorionic gonadotropin (hCG)

P205: Assessment of serum level of ANGPTL2 and its relationship with insulin resistance in the PCOs women with normal BMI

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Background: Polycystic ovary syndrome is one of the most common endocrine disorders that associated with hyper-androgenism and chronic anovulation, affecting 5-8% of reproductive-age women; also at least 50% of PCOs women have insulin resistance. Angiopoietin-like2 (ANGPTL2) is a member of the ANGPTL protein family that is predominantly secreted from adipose and the heart tissue. ANGPTL2 promotes adipose tissue inflammation and subsequent systemic insulin resistance in obesity. The aim of this study was to assess the serum level of ANGPTL2 and its relationship with insulin resistance in the PCOs women with normal BMI.

Methods: This research is a cross-sectional study which has done on 30 PCOs patients refereed to Abolfazal Clinic. They had normal BMI diagnosed according to the Rotterdam 2003 criteria. Also, 30 women who matched regarding age and BMI with cases were selected as healthy control group. Blood samples were obtained in the follicular phase. Biochemical parameters were measured by auto-analyzer. LDL levels were calculated by using the Friedewald formula. Serum levels of ANGPTL2, insulin, FSH, LH, TSH and Prolactin were measured by ELIZA.

Result: There was no significant difference in demographic characteristics, serum concentration of lipids parameters, ANGPTL2, FBS, TSH, FSH and insulin between cases and control groups. A significant increase was observed in HOMA.IR, LH and Prolactin in the case group compared with the control group. A reverse relationship was observed between serum level of ANGPTL2 and HOMA.IR, Insulin level.

Conclusion: Lack of significant difference of ANGPTL2 concentration in PCOS compared with control groups, can probably be attributed to the normal BMI.

Keywords: ANGPTL2, Insulin resistant, Normal BMI, Polycystic ovarian syndrome

P206: Assessment of serum level of obestatin and its relationship with insulin resistance in the PCOs women with normal BMI

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Background: Polycystic ovary syndrome is one of the most common endocrine disorders that associated with hyper-androgenism and chronic anovulation, affecting 5-8% of reproductive-age women; also at least 50% of PCOs women have insulin resistance. Obestatin is a

peptide hormone that secreted by the cells of stomach and small intestine, also derived from the precursor protein pro-ghrelin that inhibit food intake, body weight gain and gastric emptying. The aim of the present study was to assess the serum level of obestatin and its relationship with insulin resistance in the PCOs women with normal BMI.

Methods: This research is a cross-sectional study which has done on 30 PCOs patients refereed to Abolfazal Clinic. They had normal BMI diagnosed according to the Rotterdam 2003 criteria. Also, 30 women who matched regarding age and BMI with cases were selected as healthy control group. Blood samples were obtained in the follicular phase. Biochemical parameters were measured by auto-analyzer. LDL levels were calculated by using the Friedewald formula. Serum levels of insulin, obestatin, FSH, LH, TSH and Prolactin were measured by ELIZA technique with reliable kites.

Result: There was no significant difference in demographic characteristics, serum concentration of lipids parameters, obestatin, insulin, TSH and FSH between cases and control groups. A significant increase was observed in FBS, HOMA.IR, LH and Prolactin in the case group compared with the control group. A reverse relationship was observed between serum level of obestatin and HOMA.IR, Insulin level and FBS.

Conclusion: Lack of significant difference of obestatin concentration in PCOs compared with control group can probably be attributed to the normal BMI.

Keywords: insulin resistant, normal BMI, Obeststin, Polycystic ovarian syndrome

P207: Association of the TNFSF13B gene rs16972194 and rs56124946 rare polymorphisms and susceptibility of preeclampsia in south Iranina women

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Background: Preeclampsia (pregnancy-related hypertension) is the most pregnancy complication, affecting 0.4% to 2.8% of all pregnancies. The etiology of preeclampsia is not completely understood, but feto-maternal immune incompatibility, oxidative stress, genetic variants and endothelial cells injuries play an important role in the pathogenesis of the disease. TNFSF13B gene is a member of tumor necrosis factor family (TNF) as a main regulator of an immune response. TNF is a pro-inflammatory cytokine inducing an endothelial cell injuries and reactive oxygen species production. This study aimed to investigate the association between the TNFSF13B gene rs16972194 and rs56124946 rare polymorphisms and preeclampsia in south Iranian women.

Methods: 600 subjects including 308 women with preeclampsia and 292 healthy pregnant women were enrolled in this case-control study. Genotyping of the rs56124946 polymorphism was done using ARMS PCR and for rs16972194 using T-ARMS PCR. Statistical analyses were done by SPSS software.

Result: The frequency of CC, CG, and GG genotypes in patients were 95.2, 3.1, and 1.7 percent and 97.7, 1.3 and 1 percent in controls, respectively. Significant difference was not found in the frequency of genotypes regarding the rs56124946 polymorphism. The allele related to this site did not affect the risk of disease. About 99.3% of controls and 99.7% of patients showed GG genotype for rs16972194 polymorphism. No difference in the genotype frequencies was implicated between cases and controls.

Conclusion: In conclusion, the results of this study showed that the rare variants of the TNFSF13B gene not related to preeclampsia in Iran.

Keywords: Cytokine, Iran, Polymorphism, TNFSF13B gene, Preeclampsia

P208: Nanocurcumin can hinder oxymetholone induced spematotoxicities in mice

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Background: Oxymetholone (OXM), an active, edible anabolic-androgenic steroid, is widely used by athletes as performance-enhancer in high doses. Curcumin, a hydrophobic compound naturally found in the rhizome of Curcuma Longa, has confirmed antiviral, antibacterial, antifungal, anticancer, anti-inflammatory and antioxidant properties. In the present study, the effects of nanocurcumin on mouse epididymal sperm characteristics following OXM treatment were investigated.

Methods: Adult male mice were randomly divided into 4 equal groups and treated orally for 35 days. Epididymal sperm parameters were analyzed following sampling.

Result: Oxymetholone (5 mg/kg) administration resulted in significant epididymal sperm concentration and quality reductions. Notably, nanocurcumin (15 mg/kg) co-treatment ameliorated above-mentioned alterations.

Conclusion: It seems that nanocurcumin has potential protective activities against OXM-induced spermatotoxicities in male mice.

Keywords: Curcumin, Mouse, Sperm, Oxymetholone

P209: Case study of the effect of Endometriosis on the quality of life of Iranian women:

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Background: Introduction: endometriosis is one of the common diseases of women in the reproductive age, which about 10% of women are involved in it and its numerous complications outshine physic health, mental health and an individual's career performance and has serious negative reflection on the social and mental dimensions of patients' life and can cause a distinct decrease in the quality of women's life. The objective of this case study is to review the impact of endometriosis on the quality of women's life.

Methods: ll

Result: Subject: endometriosis is an aberrant endometrial implant and one of the common diseases of women in the reproductive age which has several complications such as chronic pelvic pain, reduction of productivity power and painful intercourse. Pain while intercourse, decrease of orgasm of chronic pelvic pain lead to decrease of satisfaction of chronic pelvic pain and reduction of sexual function were the most noted cases in the articles. With this regard, endometriosis can affect the physical health, mental health and the individual performance and has serious negative reflection on the social and psychological dimensions of a patient's life and specifically lead to reduction in the quality of women's life. The quality of life is a multidimensional and dynamic concept which includes physical, psychological and social aspects. Addressing the issue of endometriosis and its prevention and treatment can increase the quality of life for women and their families.

Conclusion: Conclusion: according to the research conducted in Iran, since endometriosis creates major mental, physical problems for the patients and is strongly influenced by their life quality, study of the best and most appropriate diagnostic ways and medical and surgical treatment which

Keywords: MahindokhtSaadatmand , MeysamGhaedrahmat, Zahra Jalali *

P210: Comparison the fertilization rate and embyo quality of in vitro maturation in unstimulated and stimulated cycles

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Background: Extensive studies have been performed on in vitro maturation (IVM) of immature oocytes in stimulated or unstimulated cycles. In unstimulated cycles there is no external gonadotrophin administration, which might be beneficial for avoiding ovarian hyperstimulation syndrome (OHSS). In stimulation cycles, we can use IVM to improve fertilization rate and number of embryos especially in poor responders.

Methods: This retrospective clinical trial that performed at Novin Infertility Treatment Center included 26 IVM in unstimulated cycles and 51 IVM in stimulated cycles matched for age, and duration and cause of infertility. Immature oocytes in both groups were cultured for 24-30 hours. Oocytes that released first polar bodies were injected by sperm. The rates of maturation, fertilization and cleavage were statistically compared.

Result: In unstimulated cycles, 146 GV oocytes were collected, 77 fertilized oocytes(77.49%) and 53 embryos (68.83%) were obtained from 102 mature oocytes(69.86%).In stimulated cycles , 264 GV oocytes were collected, 119 fertilized oocytes(69.59%) and 96 embryos (56.14%) were obtained from 171 mature oocytes(64.77%). There were no significant differences between the two groups for these events but embryo quality was significantly higher in unstimulated group ($p \leq 0.05$).

Conclusion: These results suggest that oocytes reaching metaphase II in unstimulated IVM programme have better embryonic developmental competence.

Keywords: Fertilization rate, Stimulated cycles, Unstimulated cycles, In vitro maturation

P211: Fertility in overweight or obese Men

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Background: Overweight and obese men have worse sperm quality than men of healthy weight. Being overweight or obese can also cause hormonal changes that reduce fertility and make men less interested in sex. Men who are very overweight are also more likely to have problems getting an erection. Together, these factors reduce the chances of men who are overweight or obese fathering a child.

Methods: This article is an overview of fertility in overweight or obese men.

Result: Studies showed that overweight men who had a body mass index (BMI, a measure of weight in relation to height used to measure obesity) over 25 had a nearly 22% lower sperm concentration and 24% lower total sperm count compared with healthy weight men. A BMI over 25 is considered overweight and a BMI over 30 is considered obese .Also, the results showed that with the increase in men's weight, bloodtestosterone levels decreased. There is now emerging evidence that male obesity impacts negatively on male reproductive potential not only reducing sperm quality, but in particular altering the physical and molecular structure of germ cells in the testes and ultimately mature sperm. Recent data have shown that male obesity also impairs offspring metabolic and reproductive health suggesting that paternal health cues are transmitted to the next generation with the mediator mostly likely occurring via the sperm.

Conclusion: There is emerging evidence that male obesity negatively impacts fertility through changes to hormone levels, as well as direct changes to sperm function and sperm molecular composition. Nutritionally induced alterations to both the physical and molecular composition of sperm evidently implicates it as the mediator of these impacts on both the father's fertility and the health of the next generation. There is now evidence that male obesity impacts negatively on male reproductive potential not only reducing sperm quality, but in particular altering the physical and molecular structure of germ cells in the testes and ultimately mature sperm.

Keywords: Fertility, Obesity, Sperm, Male

P212: The environmental impact on malondialdehyde and total antioxidant capacity levels in seminal plasma of the alcoholic and smokers infertile men

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Background: Recent studies have shown that reactive oxygen species (ROS) play a role in various types of male infertility and it is due to the over production of ROS or decrease in the antioxidant defense system in the reproductive system and sperm. In pathological conditions, ROS via interferences in the spermatogenesis process. These ROSs led to lipid peroxidation (LPO) and the establishment of firm peroxidation products a like malondialdehyde (MDA) in seminal and blood plasma. The purpose of this study was to investigate the association of two biomarkers of oxidative stress; total antioxidant capacity (TAC) and MDA with quality-quantity factors in alcoholic and smokers men

Methods: Forty seminal samples including: 22 normal samples, as a control groups (non alcoholic and smokers men) and 18 alcoholic and smokers male infertility samples, as a case groups, were collected from the Fatemezahra IVF Centre (Babol, Iran). Seminal and blood plasma TAC and MDA levels in all samples were measured by TBARs and FRAP methods, respectively.

Result: Our results showed that, TAC level in seminal plasma of control men was significantly higher than alcoholic men and had positive correlation with sperm count, motility and morphology. In contrast seminal and blood plasma MDA levels in control men were significantly lower than in alcoholic and smokers men and had negative correlation with sperm count, motility and morphology

Conclusion: Thus, it seems that alcoholic and smoking strengthening decrease the antioxidant capacity of idiopathic infertile male and may prevent developing malfunction.

Keywords: Lipid peroxidation, Male infertility, Malondialdehyde, Reactive oxygen species, Alcoholic

P213: Identification of a novel mutation in the Norrie disease gene: the first molecular analysis and prenatal diagnosis of Norrie disease in an Iranian family

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Background: Norrie disease (ND) is a rare X-linked, recessive disorder, which is characterized by congenital blindness and in several cases mental retardation and deafness. ND is caused by mutations in the NDP gene, located on the proximal short arm of X chromosome (Xp11.3). The disease has been reported from around the world in different ethnic groups, but none from Iran.

Methods: In this study, in order to verify ND in two patients with clinical symptoms, variations analysis of NDP gene incorporated in ND and subsequently prenatal diagnosis (PND) were done for the first time in the Iranian population by Sanger Sequencing.

Result: Molecular analysis of the NDP gene identified a hemizygous missense mutation in codon 133 in the affected patients. Mother was carrier for the identified mutation. In a subsequent di-chorionic diamniotic pregnancy, prenatal diagnosis (PND) by sequence analysis on chorionic villi sample was carried out at 11 week of gestation. The fetus was unaffected.

Conclusion: This is a first mutation report on prenatal diagnosis of an Iranian family with ND and highlights the importance of molecular analysis for confirmation, prenatal diagnosis, carrier testing, and genetic counseling .

Keywords: Molecular analysis, NDP gene, Novel mutation, Norrie disease

P214: Infertility and psycho-affective disorders

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Background: Effects of infertility on psycho-affective situation in infertile persons are a complex subject affected by infertility duration, treatment type, adjustment capabilities, prognosis of infertility, and affection supports. This study was designed to survey available researches to explore infertility`s psycho-affective disorders.

Methods: This study is a conventional review article. The method was to review related databases searched by infertility keyword in English and Persian. Finally, a total of 25 related articles were collected.

Result: On the results of studies, psycho-affective disorders in infertile persons categorized in 3 themes: 1-stress due to heavy cost of treatment, frequent reference and examination by doctor, losing of time, explaining private details of life for doctor, coitus scheduled, work absence, having a baby from gamete donation, worry about future of baby result of gamete donation and etc. that shows itself as tension, dysphoria, and insomnia. 2-Infertility is a life crisis that threatens psycho-affective situation of infertile persons. This crisis hurts psychological balance specially when there is no quick and definite solution for infertility and infertility is an obstacle to achieve life goals. 3-Infertility as painful psycho-affective experiences in person's life that accompany with blue, grief and sadness. Reactions of person to these experiences are anger, discomfort, blame, disclamation, depression, and mourning. Changes in body image, negative attitude about him/herself, limitation in communications with family and friends, and social isolation increase the disappointment and frustration. These senses cause rudeness reactions, nervousness, and violence.

Conclusion: On the adverse psycho-affective consequences of infertility, which can threat the personal and social health and stability, appropriate therapeutic and supportive cares for infertile couple are recommended.

Keywords: Disorders, Psychological, Infertility

P215: Evaluation of comparative and compensatory role of the vitamin C and menthone on the cytotoxic effect of acyclovir induced on the rat spermatozoa

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Background: The aim of this study was to evaluate comparative and compensatory role of the vitamin C and menthone on the cytotoxic effect of acyclovir induced on the rat spermatozoa.

Methods: In this experimental study, 108 wister adult male rats with average weight of 225gr,divided into six groups of acyclovir(ACV)(15mg/kg/d),ACV(15mg/kg/d),+VC(20mg/kg/d),ACV(15mg/kg/d)+menthone(100µl/d),ACV(15mg/kg/d)+menthone(250µl/d),ACV(15mg/kg/d)+menthone(400µl/d), and control group without any treatment. Each experiment was performed in three repeats. At the end of 48 days treatment, the cauda epididymis of each rats were cut and sperm samples were collected, isolated in PBS and examined by TUNEL staining process. The percentage of TUNEL positive spermatozoa was evaluated by fluoroscence microscopy.

Result: Male rats exposed to ACV showed significant increase in DNA damages in comparison to other groups. The percentage of TUNEL positive sperm cells was highest in ACV groups showing sperm abnormalities leading to decrease potential fertility in male rats. The protective role of both vitamin C and menthone in high dose was found to reverse the adverse effects of the ACV on sperm DNA of treated animals.

Conclusion: The results showed that menthone has a good compensatory effect with significant reduction in the apoptotic sperm cell number at the higher dose by

reversing the adverse effect of ACV on the reproductive system in male rat.

Keywords: Acyclovir, Menthone, Spermatozoa, Vitamin C

P216: The effect of HSP60 on fertilization and cleavage rate of mouse embryo following IVF

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Background: Importance of HSP60 in sperm capacitation and facility of sperm-oocyte membrane binding was confirmed, therefore in this study the effect of HSP60 on the fertilization rate of mouse following IVF and the rate of cleavage till 4 days after fertilization (blastocyst stage) has been investigated.

Methods: Capacitated sperms and follicles containing oocytes were placed together in T6 medium in three experimental groups in the presence of different concentrations of HSP60 (10, 50 and 100 ng/ml) and in one control group at the absence of HSP60. The fertilization rate was studied in experimental and control groups. Thereafter, zygotes were transformed into the develop medium and the cleavage rate was monitored to blastocyst stage.

Result: The rate of 8-cell embryo and blastocyst formation increased significantly ($P \leq 0.05$) in HSP60 with concentration of 10 ng/ml compared to control group. Also, the rate of embryo formation in different developmental stage including 2-cell, 4-cell, 8-cell embryos and blastocyst decreased significantly ($P \leq 0.05$) in HSP60 with concentration of 50 and 100 ng/ml compared to HSP60 with concentration of 10 ng/ml and control group.

Conclusion: Concentration of 10 ng/ml is the effective dose on improvement of embryo cleavage and it leads to an increase in the rate of embryo formation particularly in the higher developmental stage prior to embryo implantation (in stages of 8-cell and blastocyst).

Keywords: Cleavage rate, Fertilization rate, Heat shock protein 60 (HSP60), In vitro fertilization (IVF)

P217: Lithium carbonate inducing disorders in three parameters of rat sperm

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Background: Lithium has a significant impact in reducing the symptoms of bipolar mania, but in long periods of use with therapeutic doses can cause several disorders in various organs including the reproductive system. In this study, the effect of lithium on the sperm concentration and motility and forms of abnormal cells have been examined.

Methods: Male Wistar rats under the 48-day treatment with lithium carbonate at doses of 10, 20, and 30 mg/kg bw/day were kept in standard conditions. At the end of this period, sperm cells isolated from the cauda epididymis were counted, motility was estimated, and stained with smear papanicolaou stain.

Result: In lithium-treated groups, the rate of spermatogenesis and sperm quality was reduced and observed in a dose-dependent manner.

Conclusion: Lithium alters intracellular signaling pathways such as inositol phosphate metabolic cycle and cyclic adenosine mono phosphate (cAMP) system and adenosine triphosphate (ATP) synthesis. It also interferes in the division of sex cells to produce mature sperm and showed changes in the sperm cell membrane, function, and structure.

Keywords: Morphology, Motility, Sperm concentration, Lithium carbonate

P218: Vitamin E and nanocurcumin in sole and simultaneous forms of administration partially provoke oxymethalone-reduced fertilizing potential

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Background: Considering wide range usage of Nano-curcumin (NCMN), Vitamin E and low doses of Oxymetholone in various medication fields, evaluation of their possible side effect seems to be important. Present study was done to evaluate side effect of vitamin E, NCMN and Oxymetholone in female mice on in-vitro fertilization (IVF).

Methods: Thirty adult female mice were randomly categorized into experimental and control groups. The experimental group subdivided into five groups, which orally received vitamin E-sole (100 mg/kg.bw), NCMN-sole (15 mg/kg.bw), Oxymetholone-sole (5 mg/kg.bw), vitamin E (100 mg/kg.bw) + oxymetholon (5 mg/kg.bw), NCMN (15 mg/kg.bw) + Oxymetholone (5 mg/kg.bw). After 21 days, the oocytes were picked-up by inducing superovulation (10 IU PMSG and 10 IU HCG) and underwent in vitro fertilization process by using fresh sperms from intact mice.

Result: The oxymetholone-sole group exhibited a significant (P

Conclusion: Our data showed that, Oxymetholone negatively affects embryo development at all stages, and the vitamin E and NCMN are able to partially provoke embryo development.

Keywords: Fertilization, Nanocurcumin, Oxymetholone, Vitamin E

P219: Insight to fennel-induced impact on estrogen receptor α (ERα) in testicular tissue; an experimental trial

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Background: Fennel is an estrogen mimic agent, which promotes folliculogenesis, serum levels of estrogen, progesterone and prolactin. The estrogen and its nuclear receptor ERα are known as core elements involving in spermatogenesis. Minding the estrogen mimic effect of fennel and considering adverse effect of exogenous estrogens in male reproduction potential, present study was done to analyze the ERα expression in testicular tissue.

Methods: To follow-up present study, animals were divided into 4 control and test groups. The test groups received fennel at low (0.37 mg/kg b.W), medium (0.75 mg/kg b.W), and high doses (1.5 mg/kg b.W) for 35 continuing days. The mRNA and protein levels of ERα were analyzed by using reverse-transcriptase PCR, and immunohistochemistry (IHC) to assess ERα-positive cells distribution/one mm2 of tissue. Moreover, pixel based frequency analyses were performed to assay ERα-positive reactions intensity.

Result: The mRNA level of ERα was significantly increased in 0.75 mg/kg fennel-received group and remarkably diminished in both 0.37 mg/kg and 1.5 mg/kg fennel-received groups. In contrast to RT-PCR results, the IHC analyses showed that, the fennel enhanced the ERα expression dose dependently.

Conclusion: Our data showed that, fennel exerts phenotypically different effects on the ERα transcription and synthesis. Accordingly, it up-regulates protein stability, while it actively inflicts the expression at 0.75 mg/kg and suppresses the expression at 0.37 mg/kg and 1.5 mg/kg dose levels.

Keywords: Estrogen Receptor-α, Mice, Testis, Fennel

P220: Comparison between criteria and outcome of induction ovulation cycle with letrozole combined FSH and letrozole combined HMG in infertile polycystic ovarian syndrome patients

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Background: Polycystic ovary syndrome (PCOS) is the most common condition associated with chronic anovulation. Several meta-analyses have shown that the use of letrozole and gonadotropins may improve treatment results in clomiphene resistant infertile women. The aim of this study was to compare the efficacy of letrozole combined FSH and letrozole combined HMG in infertile polycystic ovarian syndrome patients.

Methods: A number of 118 clomiphene-resistant PCOS patients who referred to Milad infertility center with normal TSH, PRL, spermogram and HSG were randomly divided into two groups: group 1 received Letrozole and HMG and group 2 received letrozole and Gonal-f (recombinant FSH). From day 10th follicles number and size and endometrial thickness were evaluated by transvaginal sonography. hCG was administered when at least one mature follicle (>18mm) was observed and IUI was performed 36 h later. Vaginal suppository progesterone was used daily for luteal phase support. In this study, the treatment success was included positive pregnancy test and gestational sac and fetal heart activity seen through abdominal ultrasound. Women who conceived were followed through pregnancy up to delivery .

Result: Both groups were similar in demographic charactristics. Paraclinical and clinical pregnancy rate were significantly higher in the group treated with letrozole and FSH (P = 0.041). In this study, abortion rate, full term live birth, multiple pregnancy,ovulation,the number of 11-13 mm ovarian follicles in gonadotropin administration day and 11-13 mm, 14-17 mm and greater than 18 mm follicle and endometrial thickness on the day of hCG administration and total dose of gonadotropin were compared at the significance level of (p>0.05).

Conclusion: Letrozole combined FSH is more effective than letrozole combined HMG for induction ovulation in clomiphene resistant PCOs patient due to higher rate of pregnancy

Keywords: FSH, HMG, Ovulation induction, Pregnancy, PCOS

P221: Molecular PGD in Iran: reporting experience on more than 500 blastomeres

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Background: Preimplantation genetic diagnosis (PGD) has been developed to detect genetic disorders

before pregnancy. In this method diagnoses are done on blastomeres biopsied from 8-cell stage embryos created by in vitro fertilization method (IVF). Molecular PGD is a PCR-based approach which is used in Dr. Zeinali's Medical Genetics Lab. The aim of this study was to report PGD results for diagnosing some single gene disorders which are usually accompanied with evaluating chromosomal aneuploidies (QF), HLA typing and sex selection.

Methods: In this study, haplotype analysis was performed using short tandem repeats (STRs) in a multiplex nested PCR and the Causative mutation was detected by Sanger sequencing

Result: This study was approved by research committee of Kawsar Human Genetics Research Center. PGDs for 106 cases (527 blastomeres) were performed since 2009. 64 blastomeres for beta-thalassemia, 31 for beta-thalassemia and QF, 40 for beta-thalassemia and sex selection, 74 for beta-thalassemia and HLA typing, 32 for Hemophilia A and sex selection, 28 for Hemophilia A, sex selection and QF, 16 for Hemophilia B and sex selection, 34 for PKU and sex selection, 16 for DMD and sex selection, 9 for DMD, sex selection and QF, 46 for Fanconi Anemia and HLA typing, 16 for Deafness and sex selection, 19 for EB and HLA typing, 8 for FHL4 and HLA typing, 7 for CF and QF, 39 for sex selection and 48 for sex selection and QF.

Conclusion: In conclusion, PGD is regarded as a powerful diagnostic tool for carrier couples who desire a healthy child and wish to avoid medical abortion.

Keywords: Haplotype, Iran, Nested PCR, Molecular PGD, STR

P222: The role of retinoic acid in ovarian follicle development isolated from vitrified ovary

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Background: Ovarian vitrification is a strategy for conservation of fertility of young female patients suffering from infertility due to iatrogenic loss of ovarian function, resulting from chemotherapy and/or radiation therapy. The present study investigated whether retinoic acid administration in vitro could influence the developmental rate of perantral follicles isolated from vitrified ovary.

Methods: Mice pre-antral follicles derived from fresh and vitrified-warmed ovarian tissues were cultured individually in α-MEM medium supplemented with or without retinoic acid, followed by adding human Chorionic Gonadotropin (hCG) to induce ovulation. The follicle development parameters and ovulated oocyte maturation were assessed in four groups; non vitrified and non RA (NVNR), non vitrified and RA (NVR), vitrified and non RA (VNR), vitrified and RA (VR).

Result: The addition of retinoic acid increased antral formation and the mean diameter of follicles in vitrified and nonvitrified group (p=0.001). Also, oocyte maturation rates were significantly higher in RA groups of both vitrified and fresh samples compared to the respective RA free groups. There were no significant differences in survival rate of follicles between different groups.

Conclusion: Retinoic acid improves in vitro maturation rates, but not survival rate in isolated follicle from vitrified and fresh ovaries.

Keywords: Culture, Ovary, Retinoic acid, Vitrification

P223: Promoting the health status of menopausal women by educating self-care strategies

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Background: Menopause is an important time in a woman's life. As female life expectancy increases, women spend a greater proportion of their life in menopause. Menopause affects women's health and well-being, but their knowledge of self-care and maintenance is uncertain .

Methods: The study was conducted to design and evaluated and educational intervention to aid women in becoming more effective decision-maker regarding menopause and self care strategies . Women in the menopausal years are not informed adequately nor empowered to participate in decision making around issues related to their own health . They don't have the information they want and they don't know where to get it . The study population comprised 81 women who were selected by nonprobability convenience sampling

. All women completed a 11-item questionnaire covering demographic information , medical history , lifestyle and the current symptoms and their severity . The women completed pre- and post-intervention (0 and 6 weeks later) questionnaire which assessed knowledge and beliefs about menopause and a number of health-related behaviors . The intervention included information and group discussion about menopause , stress management , health behaviors (smoking, exercise ,diet) and treatment choices .

Result: The patients' mean body mass index was 27.3 ± 3.5 kg/m² . More than half were overweight or obese , 29.6 % engaged in sports activity, and 16 % smoked . Knowledge improved significantly at the follow-up assessments . There was a meaningful difference between the mean score of pre- and post-intervention (p=.000).

Conclusion: According to the findings, education has a strong effect on promoting the respondents' knowledge about self-care strategies . it is believed the stronger efforts are needed to promote good health-related behaviors for these women .

Keywords: Education , Women, Menopause

P224: Study of nitrat teratogenic effects on fetus of Balb / C mice on days 3, 4, 5 and 6 of pregnancy

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Background: Nowadays, a wide range of materials as additives used in small quantities in the preparation of food.

Methods: In this study, 60 female mice Balb / C were randomly divided into six groups: control, sham and experimental split 4,3,2,1 Shdnd.bh control no matter sham injection as, water was nitrate53 mg / kg.bw experimental groups 1,2,3 and 4 separately (6,5,4,3 days of pregnancy) were injected intraperitoneally. Then, the rats day 15 of pregnancy followed it Shdnd.ps comparative studies conducted sham control group the experimental group between the samples became a teratogenic embryos were studied.

Result: The embryo of mice and sham control group no apparent abnormality, including: Agzansfal, Syndactylies, C-shaped body, skeletal body motor organs mice in the experimental group than the control group sham

Conclusion: can be viewed on slightly affect the growth of embryos so that in the experimental group fetal weight, placental weight, length CR, Qatar pairs, a significant decrease compared to the control groups and showed preservatives) are especially fast food and drinking water containing high levels of nitrite are avoided during pregnancy.

Keywords: pregnancy, Preservatives, Nitrate

P225: Evaluation of genetic variations in intron 28 and exon 29 of SPEF2 gene in infertile men with immotile short tail sperm (ISTS)

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Background: One of the main causes of male infertility is immotile short tail sperm (ISTS). Numerous proteins are involved in sperm tail formation. One of these proteins is sperm flagellar 2 (SPEF2). The C-terminal part of SPEF2 (SPEF2-C) could have a main role in cilia development. The purpose of this study was to evaluate the genetic

variations of intron 28 and exon 29 of SPEF2 gene in infertile men with ISTS defect.

Methods: In this study, 30 infertile men with ISTS (above 80%) and 30 normozospermic men as control were recruited. To study the genetic variations, DNA was extracted from peripheral blood, and then PCR sequencing was done.

Result: Sequence analysis did not identify any mutations or single-nucleotide polymorphisms (SNPs) in exons 29, but an intronic variant (rs11749262, A>G) was found in heterozygote and homozygotes forms in 9 and 1 patient with short tail sperm respectively. This intronic variation also was found in both heterozygote and homozygote forms respectively in 11 and 9 persons of control group.

Conclusion: Although former studies revealed the loss of the SPEF2 gene causes a decline in elongating spermatids during spermiogenesis and fault in the formation of sperm tail in other species such as boar, present data identified no mutations or SNPs in SPEF2 gene in human. However, SPEF2 gene is extensive and has many exons, thus assessment of other exons and promoter is necessary to make sure of involvement of SPEF2 in ISTS in human.

Keywords: Intronic variant, ISTS, SPEF2, Male infertility

P226: Evaluation of L1 insertion in intron 30 of SPEF2 gene in infertile men with immotile short tail sperm

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Background: Immotile short tail sperm is a morphologic disorder that leads to male infertility. Numerous proteins are involved in sperm tail formation. The sperm flagella 2 (SPEF2) gene have a main role in cilia development. In pigs, the causal mutation for this defect was a recent large insertion in intron 30 within the SPEF2 gene in chromosome 16. In human, little information on the SPEF2 gene has been reported, and no reports on genetic variations have been published. The aim of this study was to evaluate intronic insertion in SPEF2 gene in two groups of control and infertile men with ISTS.

Methods: In this study, 30 infertile men with ISTS (above 80%) and 30 normozospermic men as control were recruited. To study the genetic variations, DNA was extracted from peripheral blood, and then PCR sequencing was done.

Result: Sequence analysis did not identify mutations (L1 insertion) within intron 30 of SPEF2 gene in control and patients groups.

Conclusion: Although previous studies have reported that the presence of an insert retrotransposon within an intron causes immotile short-tailed sperm in pigs, present data identified no L1 insertion in SPEF2 gene in human. In pigs, data showed that the presence of the L1 affects by some mechanism the expression patterns upstream of the insertion site. However, SPEF2 gene has many exons, thus assessment of other exons and regulatory areas is necessary to make sure of involvement of SPEF2 in ISTS in human.

Keywords: Intron 30, ISTS, L1 insertion., SPEF2, Male infertility

P227: Evaluation of VEGF gene polymorphism in Iranian women with endometriosis

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Background: Endometriosis is a most common benign gynecological disease which affects women of reproductive age. It is characterized by the presence of the endometrium outside the uterine cavity, leading to infertility, pelvic pain, and dysmenorrhea. Genetic, endocrine, immunological, and environmental factors have been suggested in its pathogenesis. It is a multi-factorial and polygenic disease in which angiogenesis may be implicated. Angiogenesis is under the control of numerous inducers, including vascular endothelial growth factor (VEGF).Vascular endothelial growth factor (VEGF) is an endothelial cell-specific angiogenic protein suspected to be involved in the pathogenesis of endometriosis. The aim of the present study was to assess the role of the vascular endothelial growth factor (VEGF) -2549 insertion/deletion (I/D) polymorphism in susceptibility to endometriosis.

Methods: This study comprised 100 patients who had a histologically confirmed diagnosis of endometriosis (cases), and 200 healthy women without evidence of the disease (controls). VEGF -2549 I/D polymorphism was determined using polymerase chain reaction (PCR). Genotyping for the -2549 I/D polymorphism was performed using the forward 5'-GCTGAGGATGGGGCTGACTAGGTA-3' and reverse 5'- GTTTCTGACCTGGCTATTTCCAGG-3' primers.

Result: The frequency of the II, ID, and DD genotype was 14 versus 17.5%, 52 versus 50%, and 34 versus 32.5%, in patients and controls, respectively. A statistically significant difference was not observed for genotype distribution among the patients and controls ($p = 0.3$).

Conclusion: Our results suggest that -2549 I/D polymorphismof VEGF gene did not appear to have an influence on endometriosis susceptibility in a Iranian population.

Keywords: Endometriosis, Gene, Polymorphism, Susceptibility, VEGF

P228: The effect of acupuncture on female reproductive system

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Background: Acupuncture is a component of traditional Chinese medicine (TCM) that established in medicine over the last decade. Acupuncture modulates sympathetic nervous system, the endocrine system and neuroendocrine system. Acupuncture can enhance patient's response to medication, treat any adverse effects, and support the patient emotionally. There are some studies about the role of acupuncture in reproductive system especially in female.

Methods: We reviewed published articles from 2002 to 2016 about the effects of acupuncture on reproductive system from reputable sites.

Result: Collected data showed that acupuncture appears to improve the recovery of menstrual cycle and decrease the levels of BMI and LH in women with PCOS. Also data supports a role for acupuncture as therapeutic option for women with sexual dysfunction, particularly low desire. Acupuncture was found to be beneficial for reducing chronic pelvic pain (CPP) and dyspareunia and increasing quality life in women with endometriosis. On the other hand acupuncture administered in relation to embryo transfer has no effects on the outcome in assisted reproductive techniques and was not associated with increase in pregnancy rates but the patients were more relaxed and more optimistic.

Conclusion: In conclusion, acupuncture shows promising success in treating female infertility, however further studies should be carried out taking into account patient age, severity of disease and time of intervention.

Keywords: Infertility, Reproductive system, Acupuncture

P229: Feeding pistachio waste changed sperm fatty acids profile

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Background: The objective of this study was to determine the effect of dietary pistachio by-product (PBP) dietary inclusion on sperm fatty acids profile.

Methods: Fifteen fertile rams (mean live weight 55.9±1.21 kg, 2.5-3 years old) were randomly allocated to three groups (0 (C), 12.5 (T1) and25 % (T2)) to investigate the effect of different levels of pistachio by-product for 120 days. Semen was collected in breeding season of Iranian sheep at twice a week from August 2, 2014 to December 2, 2014. The semen quality parameters were recorded for semen volume, percentages of motile and progressively motile sperm, normal morphology and sperm viability. The profile of fatty acids in the seminal plasma membrane of the rams was determined by GC. These data were analyzed by one-way ANOVA using SAS software package.

Result: The results showed that all fatty acid profiles did not show significant differences between C and T1 groups but at the end of the feeding phase, C17-1, C22-6-n-3, C18-2-Cis and C22-6 n-3 (p

Conclusion: These results indicate that adding 12.5% PBP as a cheap by-product could be economically reasonable for extended times in rams.

Keywords: Fatty acids profile, Ram, Sperm

P230: Sexual satisfaction in Iranian fertile couples : psychometric properties

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Background: Sexual satisfaction considered as one of the main physiological needs, with significant impact on the health of individuals and society. The development of a specific questionnaire for measuring sexual satisfaction among Iranian couples is essential in order to understand this concept better and dealing with crises and issues arising from it. The current study aimed to assess the psychometric properties of the Persian Version of Sexual Satisfaction Questionnaire in couples in 2013.

Methods: In this methodological study, 150 Iranian couples living in Qazvin completed the 25- item Larson's sexual satisfaction questionnaire. Reliability was determined by the calculation of Cronbach's alpha coefficient and intra-class correlation coefficients. Exploratory and confirmatory factor analysis were done by SPSS-AMOS22.

Result: Cronbach's alpha values for all positives and negative items were above 0.70. A three-factor solutions produced that explained more than 42.73% of the data using exploratory principal components analysis with Varimax orthogonal rotation and an eigenvalue cut-off of 1.0. Confirmatory factor analysis confirmed the final factor construct of Larson sexual Satisfaction questionnaire.

Conclusion: Persian version of Larson Sexual Satisfaction Questionnaire has suitable validity and reliability to be used among the Iranian couples. The factor analysis demonstrated that Larson Sexual Satisfaction Questionnaire has a multi-dimensional structure. With consideration of the proper psychometric characteristics, this questionnaire can be used to measure sexual satisfaction in this population.

Keywords: Reliability, Validity, Larson sexual satisfaction questionnaire

P231: Effect of estrus cow serum (ECS) and human menopausal serum (hMS) on bovine oocyte in vitro maturation

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Background: In vitro maturation of oocyte (IVM) is one of the most important subjects that has been studied in reproductive biotechnology. The aim of this study was to compare the effect of adding estrus cow serum (ECS) and human menopausal serum (hMS) with different concentrations on IVM of bovine oocyte in order to improve IVM rate of oocytes.

Methods: Oocytes collected from slaughterhouse bovine ovaries and treated in media with different types of serum. Maturation used in this study was divided into five categories: DMEM (control), DMEM + ECS10% (group 1), DMEM + ECS20% (group 2), DMEM +hMS10% (group 3), DMEM + hMS20% (group 4). Significant differences between treatments were evaluated by GLM test with SAS 9.2 program followed by the Chi-square and Fisher's exact test.

Result: Based on the results, supplementation media with hMS20% and hMS10% caused the increase of IVM percentage (47/82%, 33/33%) respectively. IVM ratio between group 1 and group 4 was significantly different (P0/05).

Conclusion: It can be concluded that using high concentration of hMS and ECS in comparison with control group cause no significant difference on in vitro maturation of bovine oocytes. Also, for the reason of preventive effects of estradiol that exist in ECS, adding this serum into oocyte maturation media is not recommended.

Keywords: Bovine, Human menopusal serum, In vitro maturation, Oocyte, Estrus cow serum

P232: The effect of dietary patterns on male infertility

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Background: Approximately 40% of infertility problems in are men. Male infertility is a multifactorial disease with multiple causes potentially overlapping. With regard to the majority of cases of male infertility due to sperm production defect with unknown causes. Over the past 50 years the Western diet has changed dramatically in America. For example, in the 1950s compared with today's diet more total calories, cheese, added fats, refined grains and added sugar to be formed that reflects a poorer diet. The study shows Reduced sperm count, reduced sperm motility and morphology abnormal in most Western countries with changing in dietary pattern. Aims: The purpose of this review was to elucidate the role of dietary patterns in male reproduction, providing current evidence studies.

Methods: Using PubMed and Medline, we searched for publications during the last 10 years (2006-2016) by keywords such as semen quality, infertility, diet, food pattern, semen quality, life style, Mediterranean diet, Western diet and the impact of dietary patterns on male infertility.

Result: In studies, dietary patterns affect semen quality such as mobility, concentration, sperm count, sperm morphology, sperm DNA and antioxidant status, so in this way can affect male fertility and in consultation subfertile men are not reversible and unlike some infertility risk factors, diet is an opportunity for intervention.

Conclusion: Considering the study, the diet and eating habits with effect on semen quality is closely relatedto male infertility. According to cross-sectional studies, healthier dietary patterns by reducing injuries among couples show that subfertile sperm and sperm mobility among healthy men are correlated.

Keywords: Infertility men, Semen quality, Dietary patterns

P233: Evaluation of oxidative stress in the polycystic ovarian rats

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Background: The findings about evaluation of oxidative stress in the poly cystic ovarian syndrome (PCOS) patients are conflicted. The aim of this study was evaluation of malondialdehyde (MDA) and total antioxidant capacity (TAC) levels as two biomarkers of oxidative stress in a rat model of polycystic ovarian syndrome.

Methods: Ten female rats (21 days of age) were divided into 2groups as follows: 1) The Sham group that had no treatment. 2) The PCO-Model group. In this group testosterone enanthate 1mg/100 g body weight was injected for 35 days once daily to induction of polycystic ovary phenotype. After treatments and obtaining serum samples the fasting levels of MDA, and TAC in serum were determined. TAC levels were measured by using a commercially kit available to quantitative assay antioxidant capacity on the basis of the oxidation reduction colorimetric assay. The MDA levels were determined by using an Agilent Technologies 1200 Series HPLC system. All analysis was directed by Student's t-test using Graph Pad Prism software version 5, 04 and data were shown as the mean ± SEM.

Result: The mean of serum MDA levels in PCO-Model rats were higher than the Sham rats (p

Conclusion: Our findings suggest that induction of PCOS by testosterone enanthate in rats can affect oxidation state and causes an increase in MDA level as a biomarker of lipid peroxidation.

Keywords: Malondialdehyde, Polycystic ovary, Rat, Testosterone, Total antioxidant capacity, Oxidative stress

P234: Molecular genetic analysis of TGFβ in Iranian women with Endometriosis

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Background: Endometriosis is a gynecological disorder which characterized by presence of endometrial tissue outside the uterus. Prevalence is estimated to be 6–10% in the general female population and 35–50% of the patients who labor from pain and/or infertility. Genetic, endocrine, immunological and environmental factors have critical role in its pathogenesis. Transforming growth factor beta (TGFβ) is one of the cytokines that play a role in fibrosis and angiogenesis and affects the immune responses. The aim of the present study was to assess the role of the TGFβ -509C/T polymorphism in susceptibility to endometriosis.

Methods: In this study two groups of samples was evaluated: the endometriosis women (n=100) and non-endometriosis women (n=200) as control group. Genotyping of the TGFβ gene polymorphism at -509C/T was performed by Polymerase chain reaction and restriction fragment length polymorphism (PCR-RFLP).

Result: The frequency of the TT, CT and CC genotype were 21%, 44%, 35% in patients and 16%, 50%, 32% in control group. No significant genotype distribution was observed between two groups.

Conclusion: No statistically significant association was observed between TGFβ gene polymorphism -509C/T and the risk of endometriosis in Iranian women. So evaluation of other TGFβ variants is recommended.

Keywords: Endomertiosis, PCR-RFLP, Polymorphism, TGFβ

P235: Macrophage apoptosis in Endometriosis: A role for Nitric oxide and endoplasmic reticulum stress

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ISERB 2017
The 3rd International Congress on Reproduction
Abstracts

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Background: Endometriosis, a common gynecologic disorder associated with infertility and pelvic pain, is characterized by the presence of endometrial tissue outside the uterus. A proinflammatory and prooxidant environment has been implicated in the etiopathogenesis of endometriosis. We, herein, offer a hypothesis that ER stress-induced macrophage apoptosis in the setting of excessive NO may contribute to an increased resistance of endometrial cell to macrophage-mediated cytolysis in the peritoneal cavity.

Methods: This systematic review assessed related and newest articles from 2000 to 2017.

Result: Iron overload in macrophages induces oxidative stress and exaggerates chronic inflammation, implying its causative role in the development and progression of endometriosis. NO regulates a variety of physiologic processes; however, excessive production of NO and NO-derived reactive nitrogen species result in protein misfolding within the endoplasmic reticulum (ER) and increased leakage of sarcoplasmic reticulum Ca2+, eliciting ER stress. Excessive and/or prolonged ER stress triggers apoptosis induced by persistent oxidative stress and protein misfolding. Accumulating evidence demonstrates that ER stress-induced apoptosis is involved in the pathogenesis of neurodegenerative diseases, vascular diseases including atherosclerosis, ischemia/reperfusion, heart failure, and diabetes mellitus. Of note, a deregulated NO production and ER stress has been implicated in the pathophysiology of both preeclampsia and intrauterine growth restriction (IUGR).

Conclusion: Important roles for ER-initiated apoptosis pathways have been recognized for several diseases. Therefore, the growing recognition of an association of ER stress with human disease and better understanding of the fundamental mechanisms regulating ER stress may emerge novel therapeutic strategies designed to boost inflammation resolution in productive disorders.

Keywords: Apoptosis, Endoplasmic Reticulum Stress, Iron Overload, Macrophage, Nitric Oxide, Endometriosis

P236: Improveing semen cryopreservation of roosters through oral administration of chrysin

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Background: There are many documents to show in vitro effects of antioxidants on sperm freezing process, but few studies have focused on oral administration of antioxidants and their effects on sperm recovery rate post cryopreservation. This study was conducted to investigate the effect of Chrysin (C) oral administration on sperm freezing process in rooster.

Methods: Twenty 40-week-old Ross 308 broiler breeder roosters were randomly divided into four groups. Roosters in each group received 0 (C-0), 25 (C-25), 50 (C-50) or 75 (C-75) mg chrysin/day for 11 successive weeks. Semen samples were weekly collected from 5th to 11th week of experiment to evaluate post-thawed sperm quality parameters (total and progressive motility, plasma membrane integrity and functionality, and mitochondrial activity, from 5th to 8th week) and fertility (from 9th to 11th week) by artificial insemination.

Result: The results showed that chrysin had significant effect on sperm total motility, plasma membrane integrity and functionality, and fertility. Total motility was significantly higher in C-75 compared to C-0 group. Plasma membrane integrity was significantly higher in C-50 compared to C-0 and C-25 groups. Plasma membrane functionality was significantly higher in C-50 and C-75 groups compared to C-0 and C-25 groups. Also, fertility rate was significantly higher in C-25, C-50 and C-75 groups compared to C-0 group. Difference in fertility rate between C-25, C-50 and C-75 groups was not significant.

Conclusion: In conclusion, it seems that chrysin may improve post-thawed sperm quality parameters and fertility via dose dependent and independent ways, respectively.

Keywords: Freezing, Mitochondria, Motility, Oral administration, Rooster, Sperm, Fertility

P237: The relationship between clinical and biochemical hyperandrogenism in women with PCOS: A systematic review

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Background: Many hirsute women with polycystic ovary syndrome (PCOS) are usually recognized with increased circulating androgen levels, whereas in some of them, the androgen levels are within the normal ranges. The aim of this review was to assess the relationship between clinical and biochemical hyperandrogenism (HA) in patients with PCOS.

Methods: We searched PubMed, Scopus, Scholar Google, and Science Direct databases (2000 to 2015) to identify studies investigating clinical and biochemical parameters of HA in patients with PCOS. In all studies included, Ferriman-Gallwey (FG) score had been considered as a parameters for clinical HA and total testosterone (tT), free testosterone (fT), androstendion (A4) and dehydroepiandrosterone (DHEAS) considered as biochemical HA parameters.

Result: Some studies showed correlations between FG score and tT, fT, A4, DHEAS, whereas other studies did not reported this correlations. Limited number of studies observed the associations of FG score with fT but not with tT, A4 and DHEAS. Although most studies found associations between testosterone and FG score, there is document that shows associations of DHEAS, A4 levels and FG score.

Conclusion: Determination of relationship between endocrine and clinical characteristics in hirsute patients with PCOS has important implications for follow-up and management of this disorder. According to the findings, it seems that the relationship between clinical and biochemical HA is weak and it was not completely understood. However, we recommend measuring all key androgens levels including tT, fT, A4 and DHEAS to assess the HA in patients with PCOS.

Keywords: Ferriman-Gallwey (FG) score, Hirsutism, Hyperandrogenism, Polycystic ovary syndrome

P238: The effects of lifestyle on semen quality in men: A review article

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Background: Human reproduction is not only a biological behavior, but several factors such as lifestyle may have effect on it. The rapid decline in semen quality may be due to life style factors.

Methods: PubMed, Scholar Google and Science direct databases (2000 to 2017) were searched to identify studies investigating relationship between lifestyle and semen quality in men. The following keyword combination was selected: "Semen" AND "quality" OR "fertility" AND "lifestyle".

Result: Cigarette smoking has been shown to be associated with reductions in several parameters especially sperm numbers. There is a controversy for effects of mild smoking on sperm parameters, and also effects of smoking on motility and normal morphology. Many document showed an association between alcohol consumption and an increase in abnormal sperm morphology.

Conclusion: Since semen quality was adversely affected by lifestyle, it seems that lifestyle factors such as smoking and using alcohol may be causes of male infertility. Hence, health programs focusing on lifestyle would be helpful for male reproductive health.

Keywords: Lifestyle, Reproduction., Semen quality

P239: Testosterone and berberine co-administration inflicts renewal process in varicocele: A bridge between IL-6, TNF-α and cell renewal factor Bcl-6b

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Background: Varicocele (VCL) is one of the main causes of male infertility. The tumor necrosis factor-α (TNF-α) and interleukin-6 (IL-6), as multifunctional cytokines, are known to be produced in response to chronic inflammation, testosterone withdrawal and oxidative stress in varicoceles. Moreover, TNF-α and IL-6 overexpression adversely affects the spermatogonial stem cells (SCCs) renewal process. Therefore, present study was done to analyze the effect of testosterone and berberine (potent antioxidant) against VCL-induced SCCs renewal arrest by assessing testicular TNF-α, IL-6 and Bcl-6b levels.

Methods: Thirty mature Wistar rats were divided to control and test groups. The animals in test group were undergone to experimental VCL. Thereafter, the test group subdivided to non-treated VCL-induced, testosterone-sole-treated (400 µg/kg), testosterone+50 mg/kg and 100 mg/kg berberine-treated groups. After 60 days, the animals euthanized and testicular levels of IL-6 and TNF-α were evaluated by using ELISA. The mRNA level of Bcl6 was assessed by using RT-PCR, and immunohistochemistry (IHC) was used to estimate positive cells distribution/one mm2 of the tissue.

Result: The TNF-α and IL-6 levels was increased and the Bcl-6b expression was decreased in VCL-sole group compared to control group. However, all treated groups exhibited diminished TNF-α and IL-6 as well as enhanced Bcl-6b expression versus VCL-sole animals. Comparing all groups, the animal in testosterone+berberine (100mg/kg) exhibited better results in comparison to other groups.

Conclusion: Our data shows that, the co-administration of testosterone and berberine inhibits the pro-inflammatory signals by suppressing TNF-α and IL-6 synthesis. The last event triggers the SCCs renewal pathway by Bcl-6b-related machinery.

Keywords: Bcl-6b, Berberine, IL-6, Testosterone, TNF-α, Varicocele

P240: A systematic review of prevalence of vasomotor and sexual symptoms among Iranian women

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Background: Due to decline in estrogen levels in menopause, women may experience different physical, vasomotor, psychological and sexual symptoms. The aim of this study was to systematically review the published articles reporting on the prevalence of vasomotor and sexual symptoms in Iranian women.

Methods: Five databases including MEDLINE, PsycINFO, CINAHL, SCOPUS and Google scholar as well as four Iranian databases such as SID, Iranmedex, IranDoc and Magiran were searched in January 2016 to retrieve studies reporting on the prevalence of

vasomotor and sexual symptoms in Iranian midlife women. Risk of bias was assessed using a standard risk of bias tool.

Result: Twelve independent studies met our inclusion criteria and provided data for this review. The prevalence of vasomotor and sexual symptoms was high although the ranges were wide. This might be due to utilization of different study designs, methods of recruitment, instruments, and time frame over which symptoms were assessed. There was a lack of information in most studies on the severity of symptoms as an important determining factor for clinical use. Distress-associated with sexual symptoms has not been assessed in any of studies. High risk of bias was observed for the eleven studies for both external and internal validity.

Conclusion: High quality research is needed to establish the true portray for the prevalence and severity of vasomotor and sexual symptoms in Iranian women.

Keywords: Prevalence, Sexual symptoms, Vasomotor symptoms, Menopause

P241: Up-expression of ATP synthase beta subunit and hypoxia up-regulated protein 1 precursor in rat testicular tissue after continuous 900-MHz radiofrequency electromagnetic field exposure: A proteomic approach

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Background: Recently, scientists have interested to the radiofrequency-electromagnetic field (RF-EMF) effects especially on genital system because it may impair functioning of male human reproductive organs.

Methods: To analyze the effects of exposure to RF-EMF on protein expression in rat testicular proteome, 20 Sprague-Dawley rats weighing 180 ± 10 g and aged 12 weeks were randomly divided into four equal groups and exposed to 900 MHz EMF with the average power density of 86 mW/cm2 and an average whole body specific absorption rate of 0.19-1.22 W/kg for 0, 1, 2, or 4 h/day for 30 consecutive days. Total protein content of rat testes was measured using Bradford method. Then total testicular protein was precipitated by acetone and separated by high-resolution 2 dimensional electrophoresis using immobilized pH gradient (pI 4-7, 7 cm) and 12% acrylamide. Resolved proteins were visualized with glutaraldehyde omitted silver nitrate staining. Gels were scanned and analyzed using Melanie software. The proteins of interest were excised from 2D gels and were analyzed using a MALDI-TOF/TOF-MS in reflection mode with delayed extraction. Volume and density of the respected spots were measured and analyzed BY one way ANOVA using SPSS version 21.

Result: After 4 hours of daily exposure for 30 consecutive days, ATP synthase beta subunit (ASBS) and hypoxia up-regulated protein 1 precursor (HYOU1) were found to be significantly up-regulated as 1.7 times greater than control group.

Conclusion: Both proteins have pivotal roles in energy providing across electron transport complexes of the respiratory chain and cytoprotective cellular mechanisms triggered by oxygen deprivation.

Keywords: 2-dimensional electrophoresis, MALDI-TOF, Specific absorption rate., Electromagnetic field

P242: Reducing oxidative stress during vitrification procedure

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Background: One of the main challenges in vitrification is to optimize the specific solutions in which the embryos experience the minimum level of the thermal and oxidative stress. Although many efforts have been performed in order to choose the best combination of cryoprotectant agents, the process still causes extensive cell damage. In this context, the present study was conducted to determine whether suspended graphene with regards to its antioxidant properties and high thermal conductivity and molecular weight could be used instead of sucrose in vitrification solution.

Methods: After finding the optimal graphene concentration for freezing and thawing solutions, in vivo mouse produced blastocysts were randomly divided into sucrose and graphene groups. Vitrification was performed using both kinds of solutions and their efficiency was compared in terms of survival, hatching and implantation rate and the relative intracellular levels of peroxides.

Result: According to our results, not only the survival, hatching and implantation rate in the graphene-based group were as high as that in the sucrose-based one, but also the peroxide levels of the blastocysts significantly was decreased using graphene in vitrification solutions.

Conclusion: These results demonstrated that the graphene can be applied instead of the most commonly used non-permeant cryoprotectant i.e. sucrose and leads to reduced oxidative stress level during blastocyst vitrification process.

Keywords: Cryoprotectant Agent, Graphene, Oxidative stress, Thermal Conductivity, Vitrification

P243: Inhibiting cell proliferation by silymarin fairly inhibits endometriotic grafts development: Evidences for GDNF, GFRα1 and Bcl6 genes expression

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Background: Endometriosis (EMS), a common obstetrics disorder, is determined by the presence of endometrial structures outside the uterine cavity. The inflicting roles of inflammation and oxidative stress in promoting the cellularity in endometriotic tissues have been established well. Minding the anti-inflammatory and antioxidant effect of silymarin (SMN) and considering the core roles of GDNF, GFRα1 and Bcl6 in cell proliferation, the present study aimed to uncover the inhibitory effect of SMN on these genes expression.

Methods: Experimental endometriosis was induced in 14 female Wistar rats and then the animals were randomly divided into 2 groups, including endometriosis-sole group (No:7) and endometriosis-induced SMN-treated group (No:7). The SMN was administrated at dose level of 0.7mg/kg, every two days, orally (by gavages). Following 30 days, the animals were euthanized and ectopic auto-grafted endometriums were sampled. The mRNA levels of GDNF, GFRα1 and Bcl6 were assessed by using RT-PCR and the immunohistochemistry (IHC) was used to estimate positive cells distribution/one mm2 of the tissue.

Result: The animals in SMN-treated group exhibited a significant (P

Conclusion: Our data suggest that, the SMN potentially inhibits grafts development by suppressing cell proliferation machinery, including GDNF, GFRα1 and Bcl6.

Keywords: BCL6, Endometriosis, GDNF, GFRα1, Rat, Silymarin

P244: Ameliorative effect of berberine on varicocele-related cell renewal arrest:

Correlation with Bcl-6b and glial-cell-line-derived neurotrophic factor (GDNF)

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Background: Varicocele (VCL), as highly prevalent male infertility disorder, adversely affects spermatogenesis. Glial-cell-line-derived neurotrophic factor (GDNF) and Bcl6b are known as core elements involving in spermatogonial stem cells (SSCs) renewal process. The present study was performed to uncover the promoting role of berberine, as potentially antioxidant agent, against VCL-related SSCs renewal arrest.

Methods: Thirty mature male Wistar rats were randomly divided into control (NO: 6 rats), control-sham (NO: 6 rats) and experimental groups (NO: 18 rats). The animals in experimental groups were undergone experimental varicocele and simple laparotomy was conducted in control-sham group. The experimental group subdivided into: Non-treated VCL-induced, 50 mg/kg and 100 mg/kg berberine-treated groups. The mRNA and protein levels of GDNF and Bcl-6b were evaluated by using RT-PCR and western blotting techniques, respectively. The immunohistochemical staining was performed for representing GDNF and BCL-6b-positive cells.

Result: The mRNA and protein levels of GDNF and Bcl-6b were decreased in non-treated VCL-induced group compared to control and control-sham animals. No significant changes were found between control and control-sham groups. However, the animals in berberine-treated groups (especially 100 mg/kg) exhibited significant (P

Conclusion: Considering the critical interaction of GDNF in cell proliferation and minding the role of Bcl-6b in triggering the SCCs renewal, we can suggest that berberine by promoting the GDNF and Bcl-6b expression ameliorates the VCL-related SCCs renewal arrest.

Keywords: Bcl6b, GDNF, Renewal, SCCs, Varicocele

P245: CRISPR-Cas: A new technology for studding genes playing a role in reproduction

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Background: CRISPR-Cas (Clustered Regularly Interspaced Short Palindromic Repeats/CRISPR-associated) is a new tool for genome editing which is modified from an immune system in prokaryotes against viruses and plasmid. CRISPR-Cas system works by introducing a site specific double strand cut in DNA which allows existing genes to be removed or new one added. This technology can also be used to create mouse models carrying a special insertion, deletion or point mutation much easier. In this way CRISPR-Cas system can be used for studding different genes and molecular mechanisms which play a role in male germ cells. For example zfy1/2 double knockout mouse have shown infertility and abnormal sperm morphology. In this review, we will describe how CRISPR-Cas system works and will review some of the studies which have used this system to explore the role of some genes in spermatogenesis, infertility and reproduction.

Methods: Relevant literature was identified by a PubMed search of English-language literature using the terms CRISPR-Cas, genome editing, reproduction and spermatogenesis.

Result: The role of different genes in spermatogenesis, infertility and reproduction could have been successfully studied using CRISPR-Cas system.

Conclusion: CRISPR-Cas is a fast technique to make knockout or mutated mouse models and studding and editing genome.

Keywords: Genome editing, Reproduction, Spermatogenesis, CRISPR-Cas

P246: Vitamin E reduces Polyvinyl Chloride spermatotoxic effects in Rats

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Background: It has been reported that polyvinyl chloride (PVC) is a potential reprotoxic agent. Vitamin E as a potent antioxidant can improve fertility outcomes. The goal of current study was to examine the possible protective effects of vitamin E against PVC-induced spermatotoxicities in rats.

Methods: In this experimental study, 24 male Wistar rats were randomly categorized into four groups (n=6); control, vitamin E (150 mg/kg/day), PVC (1000 mg/kg/day) and vitamin E + PVC. Epididymal sperm characteristics were evaluated after 40 days.

Result: Polyvinyl chloride-exposed rats exhibited significant reductions in sperm count, motility and viability compared to controls. Vitamin E co-administration attenuated PVC-induced epididymal sperm impairment.

Conclusion: This study demonstrated that PVC has a considerable spermatotoxic effects in rats. However, vitamin E could exert protective activities against PVC-induced reproductive toxicities through oxidative stress inhibition.

Keywords: Rat, Polyvinyl Chloride; Sperm; Vitamin E

P247: Protective effect of Vitamin E against Polyvinyl Chloride induced destruction in Rat testicular tissue

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Background: It has been suggested that polyvinyl chloride (PVC) has adverse effects on male sexual performance and testicular tissue. Vitamin E, a dietary compound with antioxidant properties, scavenges free radicals. The aim of present study was to explore the possible protective effects of vitamin E against PVC related damages in rat testicular tissue.

Methods: In this experimental study, 24 male Wistar rats were randomly divided into four groups (n=6) including control, vitamin E (150 mg/kg/day), PVC (1000 mg/kg/day) and vitamin E + PVC. After 40 days, the testicular tissues of all groups were removed and prepared for histological analyses.

Result: Oral administration of PVC decreased body and testes weights in the male rats. Moreover, PVC treatment caused remarkable deterioration of testicular tissue. Interestingly, vitamin E co-administration improves PVC induced injurious changes in testicular tissue.

Conclusion: Polyvinyl chloride exposure can lead to significant testicular damages in rats. However, vitamin E as a powerful antioxidant may have repro-protective effects in PVC-treated animals.

Keywords: Rat, Testis, Vitamin E, Polyvinyl Chloride

P248: The role of aquaporins in human sperm motility, viability and mitochondrial membrane potential

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Background: Water channel proteins (auaporins, AQPs) regulate transcellular water flow through the membrane. Emerging evidence illustrats the presence of AQPs in human sperm to mediate cell volum regulation (CVR) in female tract where sperm experience a natural osmotic decrease compared to the vas deferens. Thus, CVR is an important factor in male fertility.This study was performed to investigate the involvement of AQPs in human sperm parameters such as motility, viability and mitochondrial membrane potential.

Methods: Human ejaculated spermatozoa were washed by human tubal fluid containing bovine serum albumin medium. The sperm suspension in the medium was divided into 4 groups (each group containing 〖2×10〗^7 spermatozoa): 1. sperm at 0 hour, 2. sperm at 60 minutes (control), 3. sperm treated with HgCl_2 (AQPs inhibitor, 100µM) for 60 minutes and 4. sperm treatment with HgCl_2 + mercaptoethanol (ME, 5 µM, can partially revers the effect of HgCl_2). ME was used 15 minutes after HgCl_2 treatment. The motility was done according to World Health Organization guidelines. Eosin-Negrosin and Rhodamine staining were used to assess viability and mitochondrial membrane potential respectively. Data were analyzed with one way ANOVA.

Result: The percentage of these parameters was significantly decreased in the HgCl_2 treated group compared to the control group. In ME + HgCl_2 group, ME could revers the effect of HgCl_2 on the sperm parameters.

Conclusion: The result of this study showed that AQPs play role in motility, viability and mitochondrial membrane potential in the human spermatozoa.

Keywords: Human sperm, Mitochondrial membrane potential., Motility, Viability, Aquaporin

P249: The protective effect of silymarin on motility, viability, plasma membrane and acrosome integrity of human sperm treated with cadmium

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Background: Cadmium, as an environmental pollutant, can induce adverse effects on male reproductive system and sperm. Silymarin is known as a potent antioxidant. The aim of this study was to determine if silymarin could reverse the damaging effects of cadmium on human sperm motility, viability, plasma membrane and acrosome integrity.

Methods: Human spermatozoa were divided into five groups:1. sperm at 0 hour, 2. sperm at 180 minutes (control), 3. sperm treated with cadmium chloride (20µm) for 180 minutes, 4. sperm treated with silymarin (2µM) + cadmium (20µM) for 180 minutes and, 5. sperm treated with silymarin (2µM) for 180 minutes. Sperm motility was performed according to World Health Organization (WHO) guidelines. Hoechst and propidium iodide staining were used to evaluate sperm plasma membrane integrity. Comassie brilliant blue and eosin–nigrosin staining were performed to assess sperm acrosome integrity and viability respectively. The results were analyzed using one-way ANOVA and p

Result: The percentage of sperm motility, viability, plasma membrane and acrosome integrity were significantly decreased in the cadmium group compared to the control. The application of silymarin + cadmium could significantly compensate the adverse effects of cadmium on the sperm parameters compared to the cadmium group.

Conclusion: Cadmium induces toxic effect on human sperm motility, plasma membrane and acrosome integrity and viability. Silymarin, as a potent antioxidant, is able to compensate the adverse effect this pollutant on these parameters.

Keywords: Acrosome integrity, Human sperm, Motility, Plasma membrane, Silymarin, Viability, Cadmium

P250: BMI in PCOS patients and its importance in infertility treatment

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Background: Polycystic ovary syndrome is one of the most common endocrine disorders which may cause obesity but not universally. Typically, these features are associated with hypersecretion of luteinizing hormone and androgens, but with normal or low serum concentrations of follicle-stimulating hormone. The aim of this study is to consider BMI in PCOS patients and its importance in infertility treatment.

Methods: This is a clinical trial study. The statistical population is 120 patients with PCOS in clinical , laboratory and transvaginal ultrasound appearance. Data was analyzed by SPSS 19.

Result: From 120 PCOS patients, 28 ones (23.3 %) were single and 92 ones (76.7%) married. The age ranged between 17-34 years old (mean 25.17). 12.7 % of the cases had regular menstrual cycle, while 87.3% experienced irregular menstruation. 50% of them had oligomenorrhea, 64% had hirsutism and 50% had LH/FSH>2. Among married cases, 7.5 % were fertile, 67.5% had primary infertility and 25% secondary infertility. 43% of the cases had BMI>24.9 (over weight and obese), 57% in BMI 15-20. All patients were PCOS in ultrasound examination.

Conclusion: In fact, obesity was known as a prevalent factor in PCOS based on the previous investigations. This study indicates that less than half of the cases were obese. Accordingly, in our region there are another factors affect PCOS such as genetic, nutrition and geographic area. So, using usual infertility treatment should be accompanied by complication like OHSS. Therefore, these patients should be administered cautiously for safety doses and duration of drugs because of the side effects in low BMI patients. More studies is suggested.

Keywords: OHSS, PCOS, BMI

P251: The protective effect of allium cepa spermatogonia in alcohol – treated rats: A stereological study

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Background: Ethanol exposure is known to suppress male reproductive activity in laboratory animals and humans. Onion (allium cepa) possesses many biological and pharmacological activities and is used widely in Iranian traditional folk medicine. The aim of this study was to evaluate the protective effect of onion juice supplementation on spermatogonia cells in alcohol treated rats.

Methods: In this experimental study, 20 adult male rat were randomly divided into 4 groups (n=5) and treated for 30 days: control (1ml/kg; distillid water), alcohol (1ml/kg; ethanol 25% v/v), alcohol (1ml/kg)+ onion (3ml/kg; fresh juice) and onion(3ml/kg). All groups were given treatment orally. At the end of period, the rats were anesthetized with ketamin & xylaine and testes were removed and fixed in 20% neutral buffered formalin.The samples stained by H&E. The number of spermatogonia was estimated by unbiased stereological technique using optical fractionator and the data were analyzed using one way ANOVA.

Result: The result showed that alcohol caused reduction significantly (p

Conclusion: It can be concluded that onion can be protective or ameliorate adverse effect of alcohol in testis and infertility of male alcoholic people.

Keywords: Allium cepa, Rat, Spermatogonia, Alcohol

P252: Antifertility activity of nicotine in male mice: The protective effect of royal jelly

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Background: Smoking is a major factor that lead to male infertility. Nicotine as one of the most important hazardous substrates in cigarette is reported to directly impair male fertility and embryo development. The aim of this work is to show whether antifertility activities of nicotine could be prevented by lipid lowering agent with protective effect of royal jelly(RJ).

Methods: In this study, 36 male balb/c mice weighing 25-30 g were randomly divided into six groups(n=6) .Group 1 received 0.2 normal salin (control), group 2 received 100 mg/kg RJ, group 3 and 4 received 0.5 mg/kg and 1.0 mg/kg of nicotine respectively, group 5 received 0.5 mg/kg of nicotine with 100 mg/kg of RJ, group 6 received 1.0 mg/kg nicotine and 100 mg/kg RJ. All administration were done orally. After gavage for 30 days, fertilizing capacity of epididymal sperm and blastocyst rate of all animal was evaluated following in vitro fertilization.

Result: The results showed that fertilization and blastocyst rate decreased significantly (p

Conclusion: These results suggested that royal jelly may be improved adverse effect of nicotine on fertilization and blastocyst rate and fertilized oocyte.

Keywords: IVF, Nicotine, Royal jelly, Fertility

P253: A novel panel of 16 STR markers for detection of β-thalassemia and aneuploidy screening

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Background: β-thalassemia is the most common hematological disorder worldwide. The carrier frequency of B-thalassemia is high in Iran, therefore prenatal diagnosis (PND) or Pre-implantation Genetic Diagnosis (PGD) could be attractive options to prevent the birth of new beta-thalassemia cases. Aneuploidies are the cause of over 50% of all miscarriages. Early aneuploidy screening in conjunction with PND or PGD for thalassemia can decrease the subsequent complication of pregnancy termination.

Methods: This Study aimed to develop a novel panel for detection of β-thalassemia and aneuploidy screening simultaneously. The panel is based on the study of homozygosity mapping of 10 (6 novels) STR (Short Tandem Repeat) markers linked to HBB gene. Additionally, quantitative analysis of the critical regions of 21, 18, 13, X and Y-chromosomes was performed using markers of KBC-Aneuquick kit. These markers were amplified in a multiplex PCR reaction which is time-saving and cost-effective technique.

Result: Allele frequency & heterozygosity assessment of HBB STR markers were studied in 100 unrelated healthy individuals. Totally, 97 alleles were detected.

Genotype frequencies of the markers were found to be in agreement with the Hardy–Weinberg equilibrium (P ≥ 0.1876). Six markers with higher heterozygosity (66.7%-85.2%) were selected. For further confirmation of the homozygosity mapping data, direct mutation analysis was also performed. The results were compatible.

Conclusion: The panel was used for 14 PGD candidates and the results were successful. We found that these markers can be easily applied for PGD, PND of thalassemia and aneuploidy screening or even sex determination. This panel increases the specificity and sensitivity of the diagnosis.

Keywords: Aneuploidy screening, Pre-implantation Genetic Diagnosis (PGD), Short Tandem Repeat(STR), Prenatal diagnosis (PND)

P254: The Protective effect of royal jelly on the development in vitro of preimplantation embryos against nicotine- induced embryo toxicity in male mice

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Background: Nicotine is responsible for many harmful effects of smoking on reproductive health in several ways including alteration in the fertility of both men and women, in gestation, and in embryo development. The aim of present study is to assess protective or ameliorative effect of Royal jelly (RJ) on in vitro fertilization among nicotine induced embryo toxicity in male mice.

Methods: 36 male balb/c mice weighing 25-30 g were randomly divided into six groups(n=6). Group 1 received 0.2 normal salin (control), group 2 received 100 mg/kg RJ, group 3 and 4 received 0.5 mg/kg and 1.0 mg/kg of nicotine, respectively, group 5 received 0.5 mg/kg of nicotine with 100 mg/kg of RJ and group 6 received 1.0 mg/kg nicotine and 100 mg/kg RJ. All administration were done orally. After 30 days, percentage of zygotes, two cell, blastocyst and type of embryos were evaluated and the data were analyzed using one way ANOVA.

Result: Results indicated significantly reduce in the percentage of fertilized oocyte, two cell embryo, morula, blastocyst and arrested embryos in nicotine treated mice in comparison with control and royal jelly groups. However, in groups that received nicotine with royal jelly all of these parameters were ameliorated significantly (p

Conclusion: Our data suggests that nicotine- induced development toxicities could be protective or ameliorated by royal jelly.

Keywords: embryo, IVF, Royal jelly, Nicotine

P255: The protective role of allium cepa on semen parameters in alcohol-treated rat

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Background: Alcohol can affect every organs in the consumers body and also it has potential to severely damage sperm. Onion (allium cepa) is a generic food plant in the treatment and inhibition of some diseases. The aim of this study was focused on the effects of alcohol on semen parameters and protective or ameliorative effect of onion (allium cepa) .

Methods: 20 Wistar adult male rats were randomly divided into four groups (n=5). The control group received 1 ml/kg distilled water for 30 days, alcohol

group received 1 ml/kg ethanol 25% v/v for 1 month, alcohol + onion group received 1ml/kg of ethanol 25% v/v + 3 ml/kg of fresh juice for 30 days and onion group received 3 ml/kg fresh juice for four weeks. All groups were given treatment orally. At the end of day 30th, the rats were anesthetized with ketamine & xylazine and epididymal sperm was determined. Data were analyzed using one way ANOVA.

Result: In alcohol group, a significant (p

Conclusion: It can be supposed that protective or ameliorative effects of onion against alcohol might have been related to the anti oxidative and anti-inflammatory effects of this substance.

Keywords: Allium cepa, Rat, Sperm, Alcohol

P256: The protective effect of royal jelly on embryo devolopment against paternal heat stress induced embryo hazard

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Background: Scrotal hyperthermia has been known as a cause of male fertility and recent study suggested that scrotal hyperthermia by exposure to water bath can induce a significant alteration sperm fertilization capacity and embryo development. The present study aimed to evaluate the protective effect of Royal jelly (RJ) on embryo development rate alterations following heat stress in male rats.

Methods: In this study, 40 adult male rat were randomly divided into the 8 groups (n=5): control, RJ, 43°C ,39°C ,37°C , 43°C+RJ ,39°C+RJ , 37°C+RJ (these rats heated in water bath for 20 mins) .RJ, at a dose of 100 mg/kg BW was given by gavage. The duration of treatment was 48 days. At the end of treatment period the rats were sacrificed by dislocation of cervical vertebrae. After removal of testis the tail of epididymis was isolated and transferred to HTF medium. Percentage of zygotes, two cell, morula, blastocyst and type of embryos were evaluated. Data were analyzed using one way ANOVA and tukey test.

Result: Our data indicate decreased significantly (p

Conclusion: These results demonstrate that paternal heat stress significantly reduces the development of preimplantion embryos.

Keywords: Embryo, In vitro fertilization , Royal jelly, Heat stress

P257: The protective effect of Royal jelly on in vitro fertilization capacity of sperm in adult male rat alteration following heat stress

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Background: Heat stress, including an increase in paternal temperature, causes a decline fertility in human and mammalian. To achieve male subfertility, testes of adult male mice were immersed in water at either heated (42-39-37°C) during 20 min. The present study aimed to evaluate the protective effect of Royal jelly (RJ) on fertility rate alliteration following heat stress in male rats.

Methods: This experimental study was conducted on 40 adult male Wistar rats.The animals were divided into 8 groups (n=5 per group): control, RJ, 43°C, 39°C, 37°C, 43°C+RJ, 39°C+RJ, 37°C+RJ (those groups heated in water bath for 20 mins). RJ, at a dose of 100 mg/kg BW was given by gavage. The duration of

treatment was 48 days. At the end of 48 days fasted rats were killed. After removal of testis the tail of epididym was isolated and transferred to HTF medium. Epididymal sperm fertilizing capacity of all animals evaluated following in vitro fertilization, data were analyzed using one way ANOVA and tukey test.

Result: The results showed that fertilization rate decrease significantly ($p < 0.05$) in heat stress alteration groups in compared to control and RJ groups. Overall, RJ administration to heat stress groups ameliorate fertilization rate. There no significant difference (p

Conclusion: These results indicate that oral administration of royal jelly could improved adverse effect of alteration heat stress on fertilization rate and oocyte fertilized.

Keywords: Fertility, In vitro fertilization, Rat, Royal jelly, Heat stress

P258: Olive leaf extract recovers sperm parameters, spermatogenesis and apoptosis in adult rat following busulfan treatment

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Background: Busulfan is used in the treatment of cancer, but it increase oxidative stress and devastate spermatogenesis, so finding a material that reduces the side effects of busulfan is essential. Olive leave because of its antioxidant properties might be effective. The goal of the present study was to evaluate the effects of olive leaves extract (OLE) on sperm parameters, testis structure in male rats exposed to busulfan.

Methods: Forty rats were divided into five groups. Control group received a single dose of busulfan solvent (I.P.) and D.W for 5 weeks by gavage. Busulfan group (Bu), received a single dose of busulfan solution (BS) (10mg/kg, I.P.). After a single administration of BS, OLE was orally administrated in graded doses of 250, 500 and 750 mg/kg daily for 5 weeks. At the end, blood sample, testis morphometry, histology and sperm analysis was evaluated; also apoptotic germ cells were studied by using TUNEL assay.

Result: Sperm number, viability and progressive motility and also the number of primary spermatocyte and leydig cells increased significantly in all treatment groups versus Bu. Apoptotic spermatogonia and primary spermatocyte cells were decreased significantly after administration of T-250 and T-500, while significant increase was observed in high dose OLE. Liver enzyme was significantly higher than other groups. Testosterone level was not significantly different between all groups.

Conclusion: T-250 and T-500 might be helpful to side effects of busulfan on testes and sperm parameters, but T-750 was not as well as two other doses and even increased the apoptotic germ cells of testes besides increased liver enzymes level.

Keywords: Apoptosis, Olive leave extract, Sperm parameter, Testis, TUNEL staining, Busulfan

P259: The effect of inhibition of opioid receptors by naloxone on cyst genesis of morphine intra-VMH

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Background: The authors today know the complication Ovarian Polycystic that is a cause of infertility. Drugs including morphine have been known to play effective role in the incidence of this complication, too. Naloxone is known a competitive inhibitor of morphine which connect with mu receptor

at the central level, and the environment that has antagonistic effect on morphine. This study examined the interaction of morphine / naloxone in central hypothalamus of Wistar rats.

Methods: Experimental animals were virgin female Wistar rats with Weight range of 250-200 g /. Morphine (0.001 to 0.4 micrograms / rat) was injected into ventro-medial hypothalamus of rat (nucleus coordinates: AP: -1.96). Naloxone (0.1 to 0.4 micrograms / rat) was injected alone or pre-microinjected. In the process of naloxone pre-injection, it (0.1 to 0.4 Micrograms / rat) was administered prior to morphine (0.4 micrograms / rat). The control group received only saline. After completion of the experiments, the animals were anesthetized and after surgery, the ovaries were collected and investigated.

Result: Naloxone intervention in group receiving naloxone in presence of morphine significantly reduced the number of cysts in the ovaries of rats. Ovarian aspect in the naloxone groups was as the control group.

Conclusion: According to the results the interaction of morphine with opioid receptors in the nucleus of the hypothalamus is necessary in the development of polycystic ovaries, the complication that is stopped by inhibiting of morphine-receptor interaction due to naloxone intervention.

Keywords: Naloxone, Polycystic ovarian syndrome, Rats, Morphine

P260: The role of Treg and Th17 cells in unexplained recurrent spontaneous miscarriage

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Background: The main cause of unexplained recurrent spontaneous miscarriage (URSM) might be caused by inappropriate immunological responses of mother. We aimed to investigate the percentage of T helper 17 (Th17), T regulatory (Treg) cells and their cytokines in peripheral blood lymphocytes (PBL) of 20 women with URSM compared to 20 normal non-pregnant women (NNP) during luteal phase in window of implantation.

Methods: Expression of Treg and Th17 related cytokines was measured using quantitative real-time PCR (qRT-PCR) method. The frequency of Th17 and Treg cells was evaluated by flow cytometry analysis. Study was approved by the Research Ethics Committee of Iran University of Medical Sciences.

Result: The percentage of Treg cells in URSMs was significantly lower than NNPs (p=0.001). The percentage of Th17 cells in URSMs was higher than NNPs (p=0.01). IL-23, IL-17 and IL-6 expression levels in URSMs were significantly higher than NNPs (p=0.0001, p=0.038, p=0.05, respectively), but the higher expression levels of IL-21 and IL-10 were not significant. The expression levels of TGF-β, FoxP3, CTLA-4 and GITR in URSMs were lower than NNPs (p=0.001, p=0.001, p=0.01, p=0.005, respectively). Significant positive correlations were found between the percentage of Th17 cells with IL-23 (p=0.002), IL-6 (p=0.05) and IL-17 (p=0.003) and between expression of IL-23 and IL-6 (p=0.003) and IL-17 (p=0.002). IL-6 gene expression showed a significant positive correlation with IL-17 (p=0.005). Moreover, CTLA-4 and GITR expression were significantly correlated (p=0.0001).

Conclusion: Imbalance of Th17/Treg cells and the consequent changes in cytokine expression levels might be implicated in the pathogenesis of URSM.

Keywords: CTLA-4, IL-10, IL-17, IL-21, IL-23, IL-6, TGF-β, Unexplained recurrent spontaneous abortion (URSM), GITR

P261: The deleterious effects of conventional Wi-Fi devices on testes total antioxidant capacity

ISERB 2017
The 3rd International Congress on Reproduction
Abstracts

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Background: Following the technological development in the recent years, electromagnetic emissions from man-made devices are steadily increasing. Wi-Fi are the most widely device used by human in home place and various workplaces, which is proposed to have serious health effects to human. Some recent studies reported that exposure to Wi-Fi electromagnetic radiation may induced oxidative stress and decreased the levels of antioxidants in various tissue. Therefore, much researches are necessary to determine health consequences of exposure to such electromagnetic radiation

Methods: In order to investigate its deleterious effects on testis tissue, total antioxidant capacity were measured after 10 weeks exposure to Wi-Fi device. For this purpose, 12 male Wistar Albino rats divided in two group. The rats testes were removed at the end of the study. Tissue homogenate were prepared and used to assay total antioxidant capacity by FRAP assay.

Result: Mean total antioxidant capacity in the testes of Wi-Fi exposed rat were significantly lower than control rat (1644.6±302.49 nmol/g tissue vs. 2208.3±181.33 nmol/g tissue, P = 0.028).

Conclusion: Based on our results, continuous exposure to Wi-Fi device caused oxidative damage in testis by decreasing total antioxidant capacity. We also suggest that continuous exposure to Wi-Fi device may induce tissue oxidative stress by increasing ROS production which is cause of male infertility.

Keywords: Oxidative stress, Testis, Total antioxidant capacity, Wi-Fi device

P262: Catalase activity in testis of the rat exposed to Wi-Fi equipment

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Background: Wi-Fi equipment is being installed in houses or many public places including schools, offices, hospital and libraries. There are concerns that electromagnetic radiation emitted from Wi-Fi equipment could cause health problems and testis tissue are more susceptible to such radiation. To our knowledge, very few studies, if any, have investigated the sensitivity of the reproductive system in users continuously exposed to radiation from Wi-Fi equipment.

Methods: In our study 12 male rats, divided in two groups of control, were included in the current experiment. The experimental group were exposed to radiation from Wi-Fi equipment for 10 weeks. After completing the exposure period, the rats were anaesthetized and their testis dissected. Catalase activity was assayed according to the method of Aebi using H2O2 as the substrate.

Result: Analysis of testis indicated that catalase activity in Wi-Fi exposed group was significantly decreased compared with control group (310.27±92.79 Vs 571.07±53.84 U, P=0.04).

Conclusion: Consistent with the effect of electromagnetic radiation on various organs, an increase in the damage to reproductive system were observed 20 weeks following exposure to Wi-Fi radiation. The decreased activity of catalase, an important cellular antioxidant defense component, may lead to increased levels of prooxidants such as superoxide radicals and hydrogen peroxide. In conclusion, decreased activities of antioxidant enzymes in the individual exposed to radiation from Wi-Fi equipment can lead to oxidative stress in testis tissues, which might be responsible for the initiation or progression of various disorder

Keywords: Electromagnetic Radiation, Oxidative Stress, Wi-Fi equipment

P263: The relationship between sexual self-concept and attachment style in women

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Background: Sexual self-concept provides an understanding of the sexual aspects of a person, which derives from experiences in the past, refers to recent experiences and conducts the sexual behavior. This study aims to determine the relationship between sexual self-concept and attachment style in women referred to the medical health centers in Tehran University of Medical Sciences (2013-2014).

Methods: This sectional research has been conducted by attendance of 365 women in reproductive age that referred to the medical health centers in Tehran University of Medical Sciences. Data collection instruments include attachment, sexual self-concept and demographic questionnaires. Descriptive statistics tests Pearson correlation coefficients were used for data analysis.

Result: There was a direct correlation between negative sexual self-concept and "anxious attachment(r=0.377, p

Conclusion: Women with secure attachment have more positive sexual self-concept and positive feelings about their sexual relationship. Women with uncertain) anxious, avoidant) attachment express more negative feelings about their sexual relationship. Hence, it is forecasted that the individuals acquire positive sexual self-concept and healthy sexual behavior by acquiring secure attachment style.

Keywords: Attachment, Women, Sexual self-concept

P264: The relationship between insulin resistance and serum oxytocin level among infertile PCOS women

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Background: The aim of this study is to compare oxytocin levels between PCOS and non PCOS infertile women and evaluate the relationship between insulin resistances (IR) and oxytocin level in infertile PCOS women.

Methods: 161 infertile women of 20-35 years old entered this cross-sectional study. Eighty women with PCOS according to 2003 Rotterdam criteria and 81 ones did not have PCOS. FBS, fasting insulin (FI), 75gr oral glucose tolerance test (OGTT) were measured. Homeostatic model assessment of insulin resistance (HOMA-IR) was calculated and HOMA ≥2.5 was indicative of IR. The two groups were compared for their IR with serum oxytocin levels.

Result: The mean oxytocin level in patients with PCOS was 124.94 ±40.98ng/l vs 207.42±108.7 ng/l for the non-PCOS group (p≤0.001). Correlation between HOMA-IR and oxytocin hormone was reverse and statistically significant overall (P=0.009, r= - 0.204) but in PCOS group was not significant (P=0.817, r= -0.026). The mean FI, 2hr PP insulin and HOMA-IR were higher in PCOS group than in control group (13.52±11.12 µiu/mL vs 8.34±3.90 µiu/mL, p≤0.001;71.02±49.69 µiu/ml vs 47.67±40.03 µiu/ml P≤0.001 ;3.02±2.94 vs 1.8±0.95, p≤0.001),but the mean FBS and 2nd hour blood glucose during OGTT were not statistically different between two groups(89.56 ± 10.54 vs 89.93± 6.94; p=0.7 58 and 114.46±30.8 vs 108.85±32.48; p=1.699, respectively). The cutoff point of oxytocin for PCOS was 125ng/l ,with 70% sensitivity and 85.2% specificity and area under the ROC curve (AUC): 0.812± 0.033 (P

Conclusion: Oxytocin hormone is lower in PCOS group without relationship to their insulin resistance.

Keywords: Homeostatic model assessment of insulin resistance (HOMA-IR), Insulin Resistance (IR), Oral glucose tolerance test (OGTT), Polycystic ovary syndrome (PCOS), Oxytocin

P265: Study of reproductive indexes of dairy herds in Northwest of Iran and its comparison with existing standards

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Background: Reproductive performance has declined in dairy herds over the last few decades associated with changes in management practices, housing, and milk production. The present study was carried out to evaluate reproductive performance and reproductive disorders of Holstein dairy cows in Northwest of Iran.

Methods: Data from farms were retrieved by using reproductive management files. In this study, 5118 dairy cows' records were used to evaluate reproductive performance (open days, calving interval and gestation length) and reproductive disorders (retained placenta and dystocia) during consequent seven years. SAS 9.2 Software was used for data analysis.

Result: The means of open days, calving interval and gestation length were 109±61.98, 387±62.33 and 277±7.85 respectively. Season of calving, 305-day milk production, calving status and status of placenta had a significant effect on open days and calving interval (P

Conclusion: In conclusion, similar to an existing trend in modern dairy herds of Northern America and Western Europe, high milk production had an adverse effect on reproductive performance and disorders in dairy herds of Northwest of Iran.

Keywords: Dairy cattle, Dystocia, Open days, Parturition, Reproduction, Retained placenta, Calving interval

P266: Human Wharton's jelly mesenchymal stem cells can be an ideal cell source for cell therapy protocols in reproductive biomedicine

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Background: WJ-MSCs derived from proximal epiblast in day 13 of the embryogenesis have same origin with PGCs, so it supposed WJ-MSCs may have some characteristics of germ cells. The purpose of present study was to evaluate germ cell marker expression in WJ-MSCs.

Methods: WJ-MSCs were isolated through explant method then characterized by flowcytometry in the third passage also differentiated to adipocytes and osteocytes. Then WJ-MSCs were cultured in α-MEM containing 10% FBS for 21 days. Gene expression of ZP1, ZP2, ZP3, GDF-9, VASA, C-KIT, and SYCP3 (oocyte and germ cells specific markers) were evaluated under Real-Time PCR analysis on days 0, 7, 14 and 21 of culturing. Also on day 21 ZP3, VASA, and SYCP3 proteins were investigated by immunofleurescent assay.

Result: Flowcytometry analysis indicated that isolated cells could express CD73, CD90 and CD105 (MSCs markers) but don't express CD34 and CD45 (hematopoietic markers) and also could differentiate into adipocytes and osteocytes. Immunofleurescent technique and Real time PCR analysis revealed WJ-MSCs could express oocyte and germ cells specific markers.

Conclusion: The present study demonstrated that WJ-MSCs could express oocyte and germ cells markers at

low levels without no differentiation medium, so it showed that WJ-MSCs could maintain their germ cell memory. In accordance to this capability of WJ-MSCs, it seems they could provide prominent source for cell therapy protocols in reproductive biomedicine specially for those who have deficiency or lack of germ cells.

Keywords: Herm cells memory, Proximal epiblast, Reproductive biomedicine, WJ-MSCs

P267: Decreased levels of chromatin associated testis specific histone variants in men with impaired spermatogenesis

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Background: Through spermatogenesis sperm chromatin undergoes drastic changes can be remodeled and condensed. Various testis-specific or highly expressed histone variants exist during spermatogenesis and some of them have been reported to play a key role in chromatin remodeling. H1T and H1T2 (variants of linker histone H1), as well as TSH2B (an H2B variant) are contributed in chromatin condensation. Incorporation of these variants on chromatin facilitates the replacement of histones with transition proteins and protamins.

Methods: The aim of this study was to investigate the incorporation of mentioned histone variants on chromatin of testes tissue of azoospermic infertile men referred to Royan Institute. For this respect, consent was obtained from patients according to local ethical approval then, samples were collected through ART procedure. Based on pathological features, tissue samples divided into following three groups: complete maturation arrest, sertoli cell only syndrome, and hypospermatogenesis as positive control (at least 30 samples in each group). Relative expression of H1T, H1T2 and TSH2B genes were measured by real time PCR. Also total levels of incorporated H1T, H1T2 and TSH2B were evaluated by chromatin ELISA.

Result: Results showed significant decrease of mRNA expression of H1T, H1T2 and TSH2B in complete maturation arrest and sertoli cell only syndrome groups vs. hypospermatogenesis group ($p< 0.05$). Also, data of chromatin ELISA revealed all variants had decreased total levels on chromatin in both groups with spermatogenesis impairment vs. positive control ($p < 0.05$).

Conclusion: These findings imply significant association between altered levels of testis specific histone variants with impairment of spermatogenesis and male infertility.

Keywords: ELISA, Histone variants, Infertility, Spermatogenesis, Chromatine

P268: Doing amniocentesis yes or no: (A Narrative Review)

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Background: Several methods are used in diagnosis of syndromes like trisomy including alpha-fetoprotein (AFP), non-conjugated estriol, human chorionic gonadotropin, inhibin, ultrasound, amniocentesis, chorionic villus sampling in the first half of the pregnancy and PUBS test after 20 weeks into pregnancy in cases of strong clinical suspicion. Since the definitive diagnosis is possible only by chromosome analysis, usage of amniocentesis has been increased nowadays. But, according to reported mortalities and fetal complications of this aggressive action, this question may come to mind that "amniocentesis should be done or not?" Accordingly, this study was performed in order to evaluate the

complications of amniocentesis which can lead to a wiser decision.

Methods: In this study, we reviewed sources available from webpages of google scholar- PubMed, Science Direct and Cochrane from 2000 to 2016, with keywords such as amniocentesis, trisomy, triple test, quad test, free cell DNA. We've used total of 20 papers to perform this study.

Result: Our findings show that in case of amniocentesis, fetal mortalities occur from 1% to 1.5%. And from morbidity point of view, there were some reports including unexpected breathing problems, major orthopedic anomalies, heart rate variability and lack of fetal movement for 2 to 3 minutes. Free cell DNA was referred in some papers as a safe test for diagnosis of chromosomal disorders.

Conclusion: We propose to replace aggressive amniocentesis test with free cell DNA, as a result of reviewing the papers and the amniocentesis should be done in high risk cases such as cases in which mother is over 35 and father is over 50, history of having children with chromosomal disorders, proven chromosomal disorders in one of the parents and those with positive screening triple test and quad test at week 15 to week 18 of pregnancy.

Keywords: Free Cell DNA, Quad Test, Triple test, Trisomy, Amniocentesis

P269: Comparative evaluation of Notch signaling pathway in the endometrium of women with PCOS, endometriosis, RIF and healthy fertile controls during the window of implantation

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Background: Notch signaling pathway is best known for their role in cell fate, cell survival, cell differentiation and death during embryonic and adult development. Based on recent researches, it is important for endometrial remodeling, decidualization and implantation in mice.

Methods: To investigate potential roles of the Notch signaling family in human endometrium during the window of implantation, we examined the expression levels of Notch receptors (NOTCH1,2,3), Notch ligands (Jag1,2) and survivin as a downstream target gene of Notch signaling in mid secretory phase of menstrual cycle in endometrial biopsies taken from healthy women, PCOS, endometriosis and repeated implantation failure patients (n=10 per each group) by QRT-PCR.

Result: All the endometrial samples expressed Notch1, 2, 3, Jagged1, 2 and survivin. There were significant differences (p

Conclusion: It seems that dysregulation of Notch pathway may be one of the causes of the reduced endometrial receptivity.

Keywords: Endometriosis, Luteal phase, PCOS, Repeated implantation failure, Endometriun

P270: The effect of hydro-alcoholic extract of lamium album on the ratio of Bax/Bcl-2 and telomerase activity in HeLa cells

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Background: Lamium album, commonly called white nettle is widely used in medical setting especially in

traditional healing ways. Previous studies have been reported considerable cytotoxicity, pro-apoptotic and antitumor effects of Lamium album. HeLa is one of the cervical cancer cell lines in which hydro-alcoholic extract of Lamium album effects have not been studied so far. The aim of this study was to investigate the effects of hydro-alcoholic extract of Lamium album on HeLa cervical cancer cell line.

Methods: HeLa cells were cultured in RPMI 1640 medium at 370C in humidified condition of 95% and 5% CO2 incubator. Then, cells transferred to 9 plates with various concentration of hydro-alcoholic extract (0-32 mM) and treated for 72 hours. Telomerase activity was determined by TRAP assay method, also Bax and Bcl-2 protiens concentrations were determined by ELISA method.

Result: The cytotoxic effects of different concentrations of Lamium album on HeLa were observed as a reduction of telomerase activity and altered the expression of Bax/Bcl-2 ratio. Also, results showed that there are significant difference between telomerase activity decreasing and increase in Bax/Bcl-2 (P=0.001).

Conclusion: The current study demonstrated that hydro-alcoholic extract of Lamium album can reduce HeLa cell viability by reducing telomerase activity and increasing the rate of Bax/Bcl-2. It is concluded from this study that Lamium album can be used as an anti-cancer drug for cervical cancer cell lines through inhibition of telomerase activity and induction of apoptosis.

Keywords: Bax, Bcl-2, HeLa, Telomerase activity, Lamium album

P271: Evaluation of anxiety disorders and depression in women with endometriosis: A Systematic Review

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Background: Endometriosis is the benign proliferation of ectopic endometrial stroma and glands, located outside of the uterine cavity. Endometriosis affects women's physical, mental health and emotional well-being.

Methods: Searching performed in some databases like PubMed, google scholar, Proquest, Scopus, Springer and Science Direct. 30 full text articles in English from 2000 until 2017 were found which their topic was similar to ours.

Result: A number of studies show endometriosis was associated with an elevated likelihood of developing depression and anxiety disorders. There was a positive correlation between the grade of endometriosis and depression scores. While in other studies, there was only severity of pain, the existence combination of reduced self-esteem and reduced quality of life in patients with endometriosis.

Conclusion: Depression is highly prevalent in women with endometriosis. Exact evaluation can identify women with depression who may benefit from treatment.

Keywords: Anxiety, Depression, Endometriosis

P272: L-NAME inhibitory effect on ovarian cysts induced by morphine after the administration of drug in mid-ventral hypothalamus of Wistar rats

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1-

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Background: Polycystic ovary syndrome is a kind of complication in the reproductive system causing infertility. L- NAME is a competitive inhibitor for nitric oxide (NO) synthase enzyme which can antagonize the effects of NO, the pro-inflammatory mediator involved in cyst induction by morphine. This study examines the interaction of morphine / L-NAME in ventro-medial hypothalamus of Wistar rats.

Methods: Animals were Wistar rats weighing 200 – 250 g used as virgin material. Morphine (0.001 to 0.4 micrograms / rat) was microinjected into the ventro-medial hypothalamus of rats (nucleus coordinates AP: -1.96). L NAME (0.1 to 0.4 micrograms / rat) was injected alone or pre-injected. In the latter process, L NAME (0.1 - 0.4 micrograms / rat) was administered prior to morphine (0.4 micrograms / rat). The precursor of nitric oxide (L-arginine- 0.1 to 0.4 micrograms / rat) in an independent process was injected into the nucleus alone or in competition with L-NAME. The control group received only saline. After completion of the experiments, the animals were anesthetized and after surgery, the ovaries were collected and investigated.

Result: The ovaries of morphine creviecr rats showed polycystic view .The number of cysts was significantly decreased in samples pretreated L-NAME. Also reducing effect on cyst by L-NAME intervention in the group receiving L-arginine was obtained.

Conclusion: Probably the polycystic ovary syndrome is induced in rat due to interaction of opioid receptors and morphine at the core of the mid-ventral hypothalamus and because of activation of enzyme NO synthase; the problem which is stopped by inhibition of this enzyme.

Keywords: EMAN –L , Polycystic ovary, Rats, Morphine

P273: Infertility and genetically modified foods (GMF)

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Background: In recent years, genetically modified foods (GMF)/genetically modified organisms (GMO) and its complications for consumers have caused great concern in the international level. Many studies have been conducted in the world on the impact of GM food crop in the development of cancer and different diseases and reproduction. It seems that infertility is a growing global problem. In most studies on the causes of infertility paid to the patient's physical condition, less has been considered nutritional status especially impact of genetically modified foods.

Methods: In this study, Effects of GM foods on infertility, analyzing potential risk posed by these products in metabolism, endocrine glands and endometriosis have been investigated.

Result: Studies revealed that the GM food crops are probably one of the reasons increasing ovarian cysts and endometriosis and various reproductive organ cancers. This disease leads to infertility.

Conclusion: Nutrition with GM foods may create proteins with different amino acid chain that affects the liver, endocrine glands and hormones and also lead to polycystic ovary syndrome. Endometriosis is an estrogen-dependence inflammatory disease. Researches indicate that the pattern of gene expression in endometrial proliferative phase is different in infertile women compared to the control group that may be associated by transgenic foods and increasing concentrations of toxins derived from pesticides over time. Although, much evidences about the relationship between GM food crops and various cancers including lung, breast and colon cancers show that there are few studies on reproduction and embryonic cancers.

Keywords: Infertility, Reproduction, Genetically modified foods (GMF)

P274: Association of oxidative stress and inflammatory cytokines in PCOS

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Background: Chronic low-grade inflammation has been implemented in the pathogenesis and development of polycystic ovary syndrome (PCOS). Evidence of low-grade chronic inflammation in PCOS is indicated by the presence of elevated inflammatory cytokines. In the present study, association between oxidative stress and inflammatory cytokines were investigated in the follicular fluid (FF) of women with PCOS compared to women with normal ovarian function.

Methods: 21 women with PCOS and 21 women with normal ovulatory function who underwent intra-cytoplasmic sperm injection were recruited. FF samples obtained from participants were analyzed for concentration of IL-6, IL-8, IL-10 and TNF-α using sandwich enzyme immunoassay ELISA. Oxidative stress was evaluated by measurement of total oxidant status (TOS), malondialdehyde (MDA), total antioxidant capacity (TAC) and thiol groups using spectrophotometric assay.

Result: FF concentrations of MDA and TOS were higher than controls. TAC and thiol groups concentration were lower in PCOS compared to controls. FF concentrations of IL-6, IL-8 and TNF-α in PCOS were higher than controls. IL-10 levels were higher in controls compared to the PCOS women. MDA and TOS concentration were significantly correlated to TNF-α (r=0.6 p= 0.0001, r= 0.36 p= 0.02, respectively). IL-6 and MDA (r= 0.43 p= 0.01), IL-8 and TAC (r= -0.37 p=0.02), IL-10 and TOS levels (r= -0.3 p= 0.05) and also IL-10 and TAC levels (r= 0.4 p= 0.009) were significantly correlated. TNF-α was negatively correlated to TAC and thiol groups levels (r= -0.56 p= 0.0001, r= -0.49 p=0.003, respectively).

Conclusion: Increased oxidative stress is associated with inflammation in PCOS. Inflammation induces inflammatory cytokines generation and directly stimulates excess ovarian androgen production in PCOS.

Keywords: Follicular fluid, Inflammation, Inflammatory cytokines, PCOS, Oxidative stress

P275: The role of adiponectin in PCO: A Systematic Review

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Background: Obesity is often observed in patients with polycystic ovary syndrome (PCOS). This syndrome presents both fertility and metabolic disorders, which affects 5–10% of women of reproductive age. It is a heterogeneous syndrome with the characteristics of hirsutism, acne, anovulation, hyperandrogenemia, polycystic ovaries, infertility. Indeed, the adipose tissue is a site of production of not only steroid hormones but also adipocytokines. Obesity modifies the tissue and/or plasma expression profiles. Adiponectin is a member of adipocytokines and adiponectin functions as an insulin-sensitizing agent. In this review, we will discuss the potential role of adiponectin in PCOS.

Methods: PubMed, Google scholar and Web of Science databases up to February 2017 were searched to select studies on the role of adiponectin in PCOS.

Result: Some studies observed no difference in adiponectin levels between PCOS women and normal weight-matched control subjects, whereas other studies showed lower adiponectin levels in PCOS women. Meta-analyses of these studies, in combination with the homeostasis model assessment of insulin resistance (HOMA-IR) supported the conclusion that adiponectin levels were lower in women with PCOS. Furthermore, adiponectin levels were lower in obese PCOS women compared with non-PCOS obese women. Adiponectin levels were related to insulin sensitivity: The more insulin-resistant patients had lower adiponectin levels.

Conclusion: Although the profile of adiponectin is still unknown in PCOS due to the conflicting data, the dysregulated adiponectin levels in PCOS patients suggest that adiponectin contribute to the pathology of PCOS.

Keywords: Infertility, Insulin-resistant, Obesity, PCOS, Adiponectin

P276: The role of adiponectin in reproduction: A Systematic Review

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Background: It is well known that adipose tissue can influence puberty, sexual maturation and fertility. Adipose tissue secretes molecules called adipokines which most likely have an endocrine effect on reproductive function. Adiponectin is the main adipokine of adipose tissue largely known for its effect in improving insulin sensitivity. Indeed, adiponectin is able to regulate the functions of gonads and the hypothalamic-pituitary axis. In this review, we focus on the localization and the role of adiponectin on the reproductive tract.

Methods: PubMed, Google scholar and Web of Science databases up to February 2017, were searched to select studies on the role of adiponectin in reproduction.

Result: Many studies have shown the presence and the role of the adiponectin and their receptors in many reproductive tissues including the central nervous system, ovaries, oviduct, endometrium and testes of different species. Adiponectin regulate ovarian steroidogenesis, gonadotropin release and during IVF protocol, adiponectin improves oocyte maturation and embryo development. Many studies show that adiponectin is expressed in human term placenta. Accordingly, adiponectin could create a favorable environment for embryonic implantation and play a key role in maternal-fetal metabolism communication. However, it is still a matter of debate whether adiponectin express in placenta because some authors are unable to detect adiponectin mRNA expression.

Conclusion: Adiponectin, a beneficial adipokine, represents a major link between obesity and reproduction. Higher levels of adiponectin are associated with improved menstrual function and better outcomes in assisted reproductive cycles.

Keywords: Embryo development, Gonads, Placenta., Reproduction, Adiponectin

P277: Influence of unilateral orchidectomy on contralateral testis in rat, prepubertal and postpubertal

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Background: The present study was conducted to investigate the influence of unilateral orchidectomy and age of orchidectomy on the subsequent contralateral testis.

Methods: 64 Wistar-derived male rats divided randomly in 4 groups. Group 1 named immature intervention, group 2 immature control, group 3 mature intervention and group 4 mature control. In group 1, rats castrated unilateral at 30 days of age (prepubertal). In group 2 sham surgery (midscrotal incision) was done at same age. In group 3 rats castrated unilateral at 70 days of age (postpubertal) and in group 3 sham surgery was done at same age. 20 days after first surgery, in intervention groups contralateral orchiectomy was done and in control groups random orchiectomy (left or right) was done. Blood sampling for evaluation of serum testosterone was performed just before second surgery.

Result: Testis weight and the mean testicular weight per 100 g of body weight was greater in group 1 and 3. These parameters was greater in prepubertal group(group 1) than postpubertal group (3). There was no appreciable difference in serum testosterone levels in 4 groups.

Conclusion: Our research demonstrated that unilateral orchidectomy resulted in compensatory hypertrophy of the remaining testis and it decreased as the animals aged. unilateral orchidectomy does not lead to reduction in serum testosterone levels and remaining testis can retrieve a normal serum testosterone level.

Keywords: Compensatory hypertrophy, Rat, Testis, Unilateral orchiectomy, Iatrogenic torsion

P278: Pronuclear pattern does not predict morphokinetics behavior in human embryos

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Background: Embryo selection procedure depends on various morphological characteristics of the embryos. One of the characteristics is based on the assessment of pronuclear pattern. The purpose was to investigate the correlation between pronuclei (PN) morphology and morphokinetic behaviors of derived embryos with Time Lapse Monitoring (TLM) in clinical intra cytoplasmic injection (ICSI) setting.

Methods: over time, PN morphology from PN appearance (PNA) to PN fading (PNF), PNF according to size, contact, number and position nuclear precursor bodies (NPBs), within each PN, in other words Z soring (Z1 to Z4) and morphokinetic variables (absolute time points, including time to 2nd polar body (PB) extrusion (SPBE), PNA, PNF time to 2 cells (t2), t3, t4, t5, t6, t7, and t8) and relative timing parameters of S1(t2-PNF), CC2 (t3-t2) and S2 (t4-t3) as well as cleavage patterns and arrest of 411embryos were evaluated using TLM.

Result: There were insignificant relationship between morphokinetic variables including SBPE, PNA, PNF, t2, t3, t4, t5, t6, t7, t8, S1, CC2, S2 and Z scoring according Z1 to Z4 ($p>0.05$). Also, the insignificant relationship was noticed between uneven blastomeres, reverse cleavage embryos and Z scoring ($p>0.05$). However, there were significant correlations between the rates of direct and arbitrary cleavage as well as arrested embryos and Z scores in zygotes.

Conclusion: PN morphology alone cannot predict early morphokinetic behavior of generated embryos. Combined PN morphology and embryo kinetic evaluation were suggested in assisted reproduction programs.

Keywords: Cleavage pattern, Embryo, Morphokinetic, Zygote, Z scoring

P279: The protective effect of green tea extract on ovary function of mice treated by anti-cancer drug paclitaxel

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Background: Paclitaxel is an anticancer drug commonly used to treat ovarian cancer. Its destructive effects on ovary have been proved by several researches. The anticancer, antioxidant and chemoprotective effects of green tea may protect ovary from destructive effects of paclitaxel.

Methods: In this study effects of 2 doses (200, 300 mg/kg) of green tea extract on paclitaxel-treated mice were investigated. 35 NMRI adult female mice (8 weeks) divided into 6 groups: Control received Saline as Solvent. Experimental 1 were intraperitoneally injected 0.2 mg/kg of paclitaxel for 3 consecutive days. Experimental 2 ,3 treated with 200 mg/kg , 300 mg/kg of GTE (green tea extract) respectively daily for 4 weeks. (i.p. injection) . Experimental 4,5 treated with 200 mg/kg , 300 mg/kg of GTE respectively daily for 4 weeks. (i.p. injection). Starting at the second week 0.2 mg/kg of paclitaxel for 3 consecutive days were intraperitoneally administered. One week after the last injection blood samples for determination of FSH, LH levels were collected and ovarian weight was measured before and after treatment. Parameters of

ovarian tissue after tissue slices were examined, results of ANOVA and p

Result: Paclitaxel treatment caused a significant decrease (p

Conclusion: Green tea extract is an antioxidant protective effect on mouse ovarian tissue parameters and levels of LH, FSH after treatment with paclitaxel

Keywords: FSH, Green tea, LH, Ovary, Ovary, Paclitaxel

P280: Medical, legal and ethical aspects of oocyte donation

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Background: Resolving the ethical and legal issues related to the use of modern methods of infertility treatment has been hidden among the technical capabilities of reproductive medicine. Oocyte donation is one of the ways of treatment. Therefore, couples who use this method, because of the position of cultural, social, moral, and religious rights must be aware of the related laws. Since the oocyte donation leads to the birth of a baby that genetically dose not belong to the recipient couple, a lack of awareness of ethical and legal issues in egg donors can offset the effects of this therapy and has irreversible effects on children's future. And according to the fact that process of egg donation is relatively invasive and generally do not have the benefit of specific treatment, legal and ethical problems should be more followed.

Methods: This study is a documentary and library research which examines issues of law and ethics about egg donation.

Result: This article provides an overview and practically medical, legal and ethical issues in this area ,taking into account the various aspects of the issue and the results of treatment of infertility, preparation of national guidelines and ethical guidelines as well as comprehensive rules and regulations that consider different aspects of medical opinion in this regard.

Conclusion: In this context, it is necessary to try for improvement of egg donation program.

Keywords: Infertility, Legal aspects, Medical ethics, Oocyte donation, Oocyte

P281: Association assessment of the ERAP2 rs2549782 and rs17408150 gene polymorphisms with the incidence of preeclampsia in women of south of Iran

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Background: Preeclampsia is a common disorder of pregnancy and the main cause of mortality and morbidity in women. The disease is inherited in a multifactorial mode of inheritance and the phenotypic manifestations vary due to the interaction of genetic background with environmental factors. ERAP2 gene encodes an aminopeptidase enzyme with increase in level during the primary stages of pregnancy. ERAP2 plays role in cleavage and activation of vasopressin to angiotensin II. Regarding the role of blood pressure regulation and immune-mediation of ERAP2, in this study the association between rs2549782 and rs17408150 polymorphisms with the risk of preeclampsia was investigated among southern Iranian women.

Methods: In this case- 319 control patients and 291 healthy subjects were investigated. Genotyping of rs17408150A/T (CTA to CAA; L669Q) was done using tetra-primer amplification refractory mutation system (T-ARMS PCR). Data were analysed using SPSS v.19 software.

Result: AA polymorphic genotype of rs17408150 considerably reduced the risk of disease. In the allelic level, decreased risk of the disease was also seen in the presence of A allele.

Conclusion: Regarding the results, ERAP2 gene polymorphism can be used as a prognostic marker in at risk women.

Keywords: ERAP2 gene, Iran, Polymorphism, Preeclampsia, Aminopeptidase

P282: Psychiatric disorders in reproductive age women with polycystic ovarian syndrome: A Literature Review

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Background: Polycystic ovarian syndrome (PCOS) is one of the most common endocrine disorders that affect 5-10% of reproductive age women and also it is an important cause of infertility. It seems most of the women diagnosed with PCOS have experienced significant levels of psychiatric disorders in all dimensions of their life compared to healthy general population. The objective of this study is to investigate psychiatric disorders in reproductive age women with polycystic ovarian syndrome.

Methods: The present study is a review in which researchers conducted their computer search in public databases like Google Scholar and more specifically PubMed, ProQuest, web of science, Science direct, SID, IranMedex. The keywords used for finding relevant research articles were polycystic ovarian syndrome, mood disorders, psychological issues, personality disorder and reproductive-aged women. Research articles published from 1983 till 2017 with the relevant topic were selected for the purpose of this study. Overall 60 articles have been searched. Researchers reviewed the summary of all articles searched, 15 articles are excluded due to non-relevance and ultimately, they applied the data from 45 full articles to compile this review.

Result: Psychiatric disorders in women with PCOS were organized in five categories. They are included as depressive disorders (major depressive disorder, dysthymic disorder and depressive disorder not otherwise specified), bipolar disorders (bipolar disorder I, bipolar disorder II and unspecified bipolar disorder), Anxiety disorders (generalized anxiety disorder , Social phobia and isolation, obsessive compulsive disorder), eating disorders (anorexia nervosa, bulimia nervosa, and periodic overeating such as binge-eating disorder), personality disorder (borderline personality disorders). According to the literature, depressive and anxiety disorders are the most prevalent psychiatric diagnoses of PCOS.

Conclusion: Given the high prevalence of psychiatric disorders in PCOS women, clinicians should pay attention to this condition and considered a multi-dimensional treatment actions for high risk women before pregnancy. Additionally, it is suggested that health care providers improve PCOS women's coping strategies through providing psychosocial education and support during pregnancy.

Keywords: Mood disorders, Personality disorder, Psychological issues, Polycystic ovarian syndrome

P283: The effects of human amniotic epithelial cells on naïve CD4+, CD25¬- T cells activation from unexplained recurrent spontaneous abortion patients

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Background: The unexplained recurrent spontaneous abortion (URSA) is a common disorder in 1%–5% of women of reproductive age. Several treatments have been used for URSA; however, all are controversial. As human amniotic epithelial cells (hAECs) have immunomodulatory properties, in this study, we investigated immunomodulatory effects of hAECs on activation of naïve T cells from USRA patients.

Methods: Naïve CD4+, CD25- T cells isolated from 25 patients with URSA using MACS technique. hAECs were separated from amnion delivered by healthy women with uncomplicated pregnancies during elective cesarean deliveries. Naive T cells (4 ×

10 5) were co-cultured at different ratios with hAECs (1:1, 1:2, 1:5, 1:10) along with the positive and negative control (1:0) for 3 and 6 days. Naïve T cells were activated with anti CD3/CD28 (1µg/ml) and INF-γ secretion of activated T cells was assessed in culture supernatant by ELISA.

Result: IFN-γ level in 72h culture supernatant at 1:1, 1:2, 1:5 ratios was significantly lower than positive control (p

Conclusion: These findings suggest that hAECs have suppressive activities on naïve T cells activation from URSA patients in vitro. These suppressive effects were time-dependant and often perform through releasing suppressive mediators. Thus, it seems that hAECs may be a potential cell source as therapy for URSA.

Keywords: Immunomodulatory effects., Naïve T cells, Recurrent spontaneous abortion, Amniotic Epithelial Cells

P284: Prediction the success rate of intracytoplasmic sperm injection (ICSI) using logistic regression model

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Background: Intra cytoplasmic sperm injection (ICSI) is a main option in infertile men. Unfortunately, despite of high cost of doing ICSI the rate of success is not acceptable, and failing pregnancy put a heavy anxiety to couples. Recently many research have been done upon various models for classification of IVF (invitro fertilization), ICSI, ET (embryo transfer), but none of these models can predict the success rate of infertility up to 100%. If the predictive method has been used as second supervisor beside embryologist, it can improve the success rate and prevent from unimportant treatment.

Methods: This study is aimed to use logistic regression model for predicting the success rate of ICSI. Our database with concluded 345 patients received ICSI treatment, and each of them constructed 54 numerical and nominal records. This database was randomly divided into the estimation (n= 276) and validation (n= 69) data set. The models were used based on binary logistic regression (BLR) feature selection tools.

Result: Finally, the model were evaluated using important criteria such as accuracy, sensitivity and specificity. The best output of the BLR model by using 54 variables revealed accuracy (97%) and sensitivity (93%).

Conclusion: Our result demonstrated that BLR model outperformed highlighting the great power of BLR in success rate of ICSI prediction while using binary output.

Keywords: ET, ICSI, Infertility, IVF, Pregnancy, Logistic regression

P285: How Nano-micelle curcumin regresses ovarian redox system

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Background: Curcumin as an antioxidant component possesses a wide range of medical characteristics. Considering contrary finding about detrimental/beneficial impacts of curcumin on male and female reproductive potential, here in present study the effect of Nano-micelle Curcumin (NMC), as more active agent, on expression of antioxidant genes was assessed.

Methods: To follow-up this study, twenty-four mature female Wistar rats were assigned into control and test groups. The animals in test group were subdivided into 7.5 mg/kg b.w -1, 15 mg/kg b.w -1, 30 mg/kg b.w -1NMC-received groups. The NMC was administrated orally by gavage for 48 days. Due to experimental study the animals were selected at ovulation stage by

using pap-smear test and the expression of redox antioxidant genes including Mn-superoxide dismutase (SOD), CuZn-SOD and glutathione peroxidase (GSH-Px) was examined.

Result: The CuZn-SOD mRNA level was increased in 15 mg/kg b.w -1 and the animals in 30 mg/kg b.w -1 NMC-received group exhibited similar pattern with control group for Mn-SOD mRNA level. The animals in 15 mg/kg b.w -1 showed enhanced GSH-Px expression versus other groups. Finally, no GSH-Px as well as SOD subtypes were determined in those animals in 7.5 mg/kg b.w -1 NMC-received group.

Conclusion: Our data showed that, the NMC significantly affects the ovarian redox enzymes expression in intact female rats. More studies are needed to show the NMC-induced side effects against ovarian antioxidant potential.

Keywords: CuZn-superoxide dismutase, Glutathione peroxidase, Mn-superoxide dismutase., Ovarian tissue, Nano-micelle Curcumin

P286: The effect of vitamin D on fertility

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Background: Vitamin D plays a significant role in the adjustment process of reproduction in women, because vitamin D receptor expression in reproductive tissues such as the ovary, uterus, placenta, pituitary and the hypothalamus are involved. Vitamin D also has a role in regulating steroid and sex hormone in men. The relationship between vitamin D and disease affecting female fertility (polycystic ovary syndrome (PCOS), endometriosis and uterine leiomyoma of the uterus), and in vitro fertilization (IVF) has been assessed. Vitamin D may play a role in polycystic ovary syndrome surveillance (PCOS), including ovulatory dysfunction, insulin resistance and androgen. Lack of vitamin D in the pathogenesis of endometriosis according to the immune system and anti-inflammatory properties have been reported. 25-OHD deficiency in women impedes optimum thickness of the endometrium for implantation of the embryo after ICSI is to improve vitamin D and can help improve fertility clinic success.

Methods: Methods based studies to investigate from some databases like pubmed,google scholar,proquest and science direct(2012-2017)

Result: Lack of vitamin D may have a direct impact on sperm motility in men and a risk factor for poor semen quality of male infertility. Vitamin D reproductive effects in place, but secondary to vitamin D and metabolic Hanzym active in the production and reduce the vitamin D3 receptor by binding to vitamin D (VDR). is . The high prevalence of 25 (OH) D deficiency is a real alarm for public health care system and may affect our results

Conclusion: : Vitamin D has an impact on the fertility of men and women and therefore special attention is needed to review its treatment and more research is needed in this area

Keywords: Fertility mem, Fertility women, Vit D

P287: Evaluation the effect of Bone morphogenetic protein 15 on Morphology and apoptosis in mouse whole ovaries

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Background: Bone morphogenetic protein 15 (BMP15) as a growth factor play an important role during early ovarian development and folliculogenesisy, The purpose of the present study was to evaluated the development of follicles and incidence of apoptosis in cultured neonatal mouse ovaries in the presence of leukemia inhibitory factor BMP15.

Methods: The ovaries of one- week old mouse were cultured in minimum essential medium in the presence or absence of BMP15 for 7 days. The development of ovarian follicles was analyzed by hematoxylin–eosin staining. Apoptosis assessment was done using the terminal deoxynucleotidyl transferase-mediated deoxyuridine triphosphate nick end-labeling (TUNEL) method, and caspase-3/7 activity technique at the beginning and at the end of culture period. The levels of 17-β estradiol (E2) and progesterone (P4) were done on the collected media during culture period.

Result: The percentage of preantral follicles and the levels of 17-β estradiol (E2) and progesterone (P4)

hormones were increased in all cultured groups and it was significantly higher in BMP15 supplemented groups inn compared with control groups (P< 0.001). The level of caspase-3/7 activity and DNA fragmentation were prominent in control cultured ovaries after culture.

Conclusion: BMP15 treatment appeared to significantly increase the ovarian follicular development and decreased the proportion of apoptotic cell during 7 days of culture of neonatal ovaries.

Keywords: Bone morphogenetic protein 15 (BMP15), In vitro culture, Apoptosis

P288: The study of spermatogenesis effects of longum piper fruit on azoospermia Rat.

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Background: Couples have got 21% infertility problems in which 60% is due to male factor. Sometimes after cell migration to gonads, under the influence of various factors, gametogenesis does not happen. In addition to genetic factors, various factors cause infertility. In traditional medicine, azoospermia treatment is done with herbs.

Methods: To investigate the spermatogenesis effect of longum piper fruit on azoospermia rats in this experimental study, was used 28 male white Wistar rats with 10 weeks old and weighing approximately 200±.10 grams. Rats were purchased from the Institut Pasteur and were kept under laboratory conditions. During the study, rats were in 12/12 hours of light-darkness, 24 ± 2 °C and room humidity was 55-60%. The 7 rats, normal group (Group 1), and then 21 rats were sterilized with 30mg/kg Busulfahe (Group2). After azoospermia assurance, Group 2 was divided into three subgroups with 7 rats: 1) Group 2-1: Control: Maintenance only at standard conditions. 2) Group 2-2: Sham, gavaging only with water. 3) Group 2-3: Treatment, gavage twice with longum piper fruit powder.

Result: At the end of treatment, re-coloring spermatogenesis was examined in the testes. Lumen reduction in seminiferous tubules and reduction in mature sperm was significant and observed in control and Sham groups but in the group 2-3 dimensional analysis and epididymis was significantly reduced and mature spermatozoa was observed in seminiferous tubules. Spermatogenesis in the treatment group compared to the control group 48% improvement.

Conclusion: In general, fruits and seeds the longum piper powder can result in azoospermia with spermatogenesis a dormant spermatogonia.

Keywords: Azoospermia, Infertility, Rat, longum piper

P289: Cryoprotective effect of resveratrol on DNA damage and crucial human sperm messenger RNAs, possibly through 5' AMP-activated protein kinase activation

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Background: Besides the assessment of DNA integrity, knowing the molecular health of sperm samples after the freeze–thaw process would be critical. We recently showed that the protective features of resveratrol, a polyphenol found in numerous plant species, on cryopreservation-induced oxidative stress may be mediated through activation of AMP-activated protein kinase (AMPK). Thus, this work aimed at investigating the beneficial effect of resveratrol on (i) DNA integrity and (ii) fertilizing

capacity of sperm by quantifying the presence of key paternal transcripts considered as markers for male fertility (protamine 1 [PRM1] and protamine 2 [PRM2]) and pregnancy success (adducin 1 alpha [ADD1]) in cryopreserved human spermatozoa through modulation of AMPK.

Methods: Spermatozoa from 22 normozoospermic men were incubated with or without AMPK activator (Resveratrol [RSV]) or inhibitor (Compound C [CC]) for 1 hour and were then cryopreserved. Untreated frozen–thawed spermatozoa served as controls.

Result: The RSV-induced AMPK activation decreased the level of DNA fragmentation in comparison with the control (21.18 ± 0.92 versus 22.50 ± 0.40; $P < 0.01$). The relative mRNA expression levels of protamines (1 and 2) and ADD1 in RSV pretreated frozen- thawed human spermatozoa were also improved significantly compared to the control ($p < 0.05$). Besides, the inhibitory effect of CC on AMPK activity deteriorated the deleterious effects of cryopreservation on these parameters ($p < 0.01$).

Conclusion: In conclusion, these results demonstrated the cryoprotective effect of the RSV-induced increase in AMPK activity on DNA integrity and key paternal transcripts of cryopreserved human spermatozoa.

Keywords: AMP-activated protein kinase, cryopreservation, DNA damage, human sperm, qPCR, Resveratrol

P290: The success rate of male infertility treatment in first try

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Background: ART treatments try to overcome the infertility. Diagnosis of infertility cause is a guarantee for treatment success. Success of male infertility treatment isn't clear in Iranian treatment centers. There are several factors that affect treatment result and success rate. The success rate of male infertility treatment helps better patient management. Evaluating the treatment success of male infertility was the aim of this study.

Methods: In a retrospective study, 323 couples with male factor were investigated and data were extracted from patient files. Success rate calculated by determining the ratio. Survival analysis for the duration of pregnancy and its related factors were used. Alpha level was set as 0.05 and 14 effective factor was reviewed.

Result: The success rate in first attempt was calculated 27.2% based on the live birth. Clinical pregnancy success rate was 34.7%.

Conclusion: Type of ART treatment had a great impact on the success rate. The success rate for the first attempt that calculate in this study was similar to the developed countries.

Keywords: Infertility treatment, Male infertility, Success rate of ART treatment

P291: Evaluation of Allogenicity effects of Human Amniotic Epithelial Cells on Peripheral Blood Mononuclear Cells from Healthy Subjects

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Background: Human amniotic epithelial cells (hAECs) have pluripotency, repair capacity, immunomodulatory properties, differentiate into multiple cell lineages. Therefore, we investigated allogenicity effects of hAECs, as a potential therapy

for cell therapy, on peripheral blood mononuclear cells (PBMCs) from Healthy Individuals.

Methods: PBMCs isolated from 4 healthy donors using density gradient centrifugation. hAECs were separated from 4 amnions delivered by healthy women. Isolated-hAECs from 4 amnions were mixed with each other. PBMCs (2.5 × 104) were co-cultured with hAECs at different ratios (1:1, 1:2, 1:3) along with positive (1:0) and negative control(1:0), for 3 days. In positive control, the Proliferation of PBMCs was stimulated with anti CD3/CD28 (1µg/ml). BrdU cellular ELISA kit used to proliferation assay.

Result: In the positive control, the proliferation of PBMCs were significantly more than 1:1, 1:2 , 1:3 ratios(P

Conclusion: These findings suggest hAECs are not the allogenicity properties and may exert inhibitory activities on PBMCs in vitro. Therefore, the possibility of rejection of these cells can decrease after transplantation as a potential cell source for generative medicine.

Keywords: Amniotic Epithelial Cells, Generative Medicine, Peripheral Blood Mononuclear Cells, Allogenicity effects

P292: The effect of relationship enrichment training on marital intimacy infertile couples with domestic violence

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Background: : Support for infertile couples and offering them training programs are part of the health reform plan. Considering that infertility causes problems in the marital relationships of infertile couples, the current study was conducted to determine the effect of relationship enrichment training on marital intimacy of infertile couples with domestic violence.

Methods: This is a semi experimental study with pre and post-test on 36 infertile couples with domestic violence referred to the infertility center of Sari in 2015. in the two groups was performed. The couples were randomly divided to control groups and experimental groups. Domestic violence screening was performed with a standard questionnaire conflict tactic scales (CTS) among infertile couples. Data was collected by marital intimacy questionnaire, and was completed by both groups before, immediately and after two months after intervention. The validity and reliability of both questionnaires have already been approved in internal studies. The intervention consisted of seven 90-minute training sessions and was conducted by a graduate student of Midwifery counselling. Data were analyzed using SPSS software (version 20).

Result: Intervention improved the mean score of marital intimacy (P

Conclusion: : Relationship enrichment increased the marital intimacy, therefore using the relationship enrichment training workshops is recommended. Although mean score of psychological dimension was not statistically significant, it increased after intervention. Furthermore, other dimensions indicated significantly improvement in post-test.

Keywords: Domestic violence, Infertility, Marital intimacy, Enrich relationships

P293: Nutrition plays a pivotal role in female infertility

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Background: Infertility is a common problem affecting 10–15% of couples. Female infertility is

caused by one or more of factors including polycystic ovary syndrome (PCOS), premature ovarian insufficiency, hyperprolactinemia, damage to fallopian tubes, endometriosis and cervical causes. Nutrition plays a key role in determining reproductive health and can positively or negatively influence fertility. This review focuses on modifiable diet and nutrition in women infertility.

Methods: An internet based search through PubMed, Google Scholar, and the American Society of Reproductive Medicine and the European Society of Human Reproduction and Embryology, with the search terms including: “infertility of women”, “PCOS” ,“endometriosis” , “dietary pattern” , “food intake” and "nutrient" that was restricted to the publications in the recent 25 years (since 1991-2016).

Result: Date showed that intake of trans-unsaturated fats is associated with a higher risk of endometriosis and infertility (P-value= 0.001). Further intake of long-chain omega-3 fatty acids is associated with a lower risk of infertility (P-value= 0.03). Glycemic index plays an important role in the diet in infertile women, actually high glycemic index foods have strong association with a greater risk of infertility (P-value=0.005). Unexpectedly, an inverse association exists between high-fat dairy food intake and risk of infertility.

Conclusion: This study suggests that there is some link between diet and risk of infertility in women. These findings suggest that high monounsaturated fatty acid intake, the consumption of vegetables rather than meat as a protein source; low glycemic carbohydrates and whole-fat dairy products may influence the rate of fertility.

Keywords: dietary pattern, food intake, PCOS, fertility

P294: Optimization of Polyethylenimine to Improve the Transfection Efficiency of Sheep Spermatogonial Stem Cell

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Background: Spermatogonial stem cells (SSCs) have the capability to self-renew and to contribute genes to the next generation. Genetic modification of these cells would provide an opportunity to study the gene function, biochemical mapping, mutational analysis, production of recombinant proteins and generation of transgenic animals. The aim of this study was to verify and optimize the transfection efficiency of sheep testicular cells including (SSCs) via polyethylenimine (PEI, branched with Mw 25 kD), one of potent non-viral gene delivery carrier that show promise in stem cell genetic modification.

Methods: Following isolation and propagation of one-month lamb testicular cells, the effect of different polymer/plasmid DNA weight ratios (C/P; 2.5 and 5) in various incubation times (4, 24, 48, and 72h) were evaluated on transfection efficiency, viability rate and mean fluorescent intensity (MFI) of sheep testicular cells.

Result: The highest transfection efficiency with appropriate cell viability was obtained 48h after culture initiation in C/P 2.5. The most MFI was demonstrated in SSCs among different testicular cell types.

Conclusion: PEI as a cationic polymer is an efficient method for transduction of plasmid vector into sheep SSCs. This improvement could greatly boost the application potential of its in clinical cell-based gene therapies.

Keywords: Transfection, Polyethylenimine, Spermatogonial Stem Cell

P295: The effect of Wi-Fi radiation on sperm quality in males

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Background: : Environmental exposure to electromagnetic radiation (EMR) has been increasing with the increasing demand for communication devices as internet. The aim of the study was to discuss the effect of EMR on male reproductive system and sperm quality.

Methods: : This study was a systematic review about the effect of EMR such as radiations emitted by Wi-Fi

on reproductive system and sperm quality in males. We searched in articles that were published in Pub Med Medline database (from 2005 to 2016).

Result: However, the results of some studies showed that EMR induced endometriosis and inflammation and decreased the number of follicles in the ovary of rats, in studies with male rats; exposure caused degeneration in the seminiferous tubules, reduction in the number of Leydig cells and testosterone production as well as increases in luteinizing hormone levels and apoptotic cells. The studies in human indicated semen quality was decreased and some of sperm parameters were changed in Wi-Fi users, they were not significant, but they have a higher percentage of sperm DNA fragmentation compared to other men significantly.

Conclusion: we can advice the decrease use of this device in infertile men at least in treatment period to increase the couples' chances of conception.

Keywords: DNA fragmentation, Electromagnetic radiation, Wi-Fi, Infertility

P296: Effects of Conjugated Linoleic Acid (CLA) on spermatogenesis and apoptosis of germinal cells in male mice model of obesity

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Background: Obesity, which has been increased in recent years, associates with reduction of the rate of fertility. Since CLA can reduce the obesity, the purpose of this study is to investigate the effects of CLA on spermatogenesis and apoptosis of germinal cells in male rat model of obesity induced by different oils.

Methods: In this cross-sectional study, 60 male NMRI mice were used. They were randomly divided into 6 groups delivering different sources of oil: Group A (Fish oil), Group B (Olive oil), Group C (Hydrogenated sunflower oil), Group D (Flax oil), Group E (Dehydrogenated sunflower oil) and group F (Control). After 14 weeks of being on a diet of different oils, 5 mice of each group continued their diet of different oils and 5 remaining mice of each group were treated with CLA for 4 more weeks. Following 18 weeks, histological studies of testis for germinal epithelium quality and apoptosis in germinal cells were evaluated by H&E staining and TUNEL assay respectively. Data were analyzed by ANOVA test in SPSS software (16th version).

Result: Olive oil significantly attenuated germinal epithelium (P=0.01), but other oils did not alter the germinal epithelium significantly. CLA treatment ameliorated adverse effects of olive oil (P=0.001), hydrogenated sunflower oil (P=0.05) and flax oil (P=0.03). Number of apoptotic cells was highest in the dehydrogenated sunflower oil compared to the control group (P=0.02). CLA treatment could significantly decrease the number of apoptotic cells in the dehydrogenated sunflower oil (P=0.01) and olive oil (P=0.03) groups.

Conclusion: CLA treatment ameliorates the adverse effects of different oils on spermatogenesis and apoptosis of germinal cells.

Keywords: apoptosis, conjugated linoleic acid, spermatogenesis, obesity

P297: Comparing the Effects of Combined Low-Dose Oral Contraceptives and Vitex Agnus on the Improvement of Symptoms Polycystic Ovarian Syndrome: A Triple-Blind, Randomized, Controlled Clinical Trial

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Background: Polycystic ovarian syndrom is the most common hormonal disorder in reproductive-age women. This syndrome is associated with many complications for women, so treatment is necessary.

Methods: : This triple-blind controlled trial was performed on 70 women aged 18-45 years with polycystic ovarian syndrom in Clinics of Alzahra and Taleghani hospitals and health centers in 2015 Tabriz, Iran through purposive sampling method . Women were randomized to LD or vitex agnus. Before and after 3 cycles, regulation of the menstural cycle lenght, free testostrone, DHEA-S (Dehydroepiandrosterone sulfate), Prolactin were assessed.

Result: Socio-demographic characteristics in two groups were homogeneous before intervention. No significant statistical differences were between the LD and vitex agnus groups three months after intervention in terms of normalization of menstrual cycle duration, means of free testostrone, DHEA-S, Prolactin serum levels, and side effects. Three months after intervention, the menstrual cycle duration of about 68.6% of the LD group members and 60% of the vitex agnus group members became normal. The means of free testosterone serum and prolactin levels in both LD and vitex agnus group had no differences three months after the intervention as compared to the time before intervention. The mean of DHEA-S serum level in both LD (Mean Difference (MD) = -0.52; [95% CI -0.85 to -0.18]) and vitex agnus groups (MD = -0.60; [95% CI -0.79 to -0.40]) decreased significantly three months after intervention as compared with the time before intervention.

Conclusion: : This study showed that LD and vitex agnus were effective in normalization of menstrual cycle and reduction of DHEA-S, but they had no effect on free testosterone serum and prolactin levels. The effects of LD and vitex agnus on normalization of menstrual cycle and means of Prolactin, free testosterone, and DHEA-S serum levels in the women with PCO were similar. Therefore, vitex agnus can be used rather than LD.

Keywords: Amenorrhea, Contraceptives Oral Combined, Oligomenorrhea, Polycystic Ovary Syndrome, Vitex

P298: Comparison of Lifestyle between Women with and without Polycystic Ovary Syndrome

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Background: Background and Objective: Polycystic ovary syndrome (PCOS) is the most common endocrine disorder affecting women of reproductive age, hirsotism and hyperandrogenisme, with a prevalence estimated at 2/2-26% depending on the diagnostic criteria used. The clinical manifestation of PCOS varies from a physical disorder to severe disturbance of reproductive and psycological functions. Lifestyles is one of the health determinant factors and have some area such as food habit, physical activity, alcohol and cigaret use, drug abuse, social support and controll of stress. Lifestyle is cause or progresive cause of many deases. In this research we try to camparate Lifestyle between Women with and without Polycystic Ovary Syndrome.

Methods: Method: It was a descriptive cross-sectional study. The sample consisted of 65 women suffering from PCOS and 65 non PCOS who referred to selected hospital of Shahid Beheshti Medical Science. These women were in a same age and they have similar BMI. Data have been collected with nutrition, IPAQ physical activity, percived social support, percived stress and unhealthy behavior Questionnaire and analyzed using chi-square, t test, logestic regretion with SPSS version. 17.

Result: data showed that is mean full relation between PCOS and weak nutrition (p=0.009), less physical activity (p=0.009), improper social support (0.005) and stress (p=0.011) and showed that PCOS are not related to unhealthy behavior, education, job, husband's education and job and outcome.

Conclusion: research showed that PCOS is related to the weak nutrition, less physical activity, improper social support and stress so the patients need necessary consoling.

Keywords: PCOS., Lifestyle

P299: The effect of small molecule PFT-μ on mouse spermatogonial stem cells apoptosis

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Background: Spermatogonial stem cells (SSCs) are responsible for the propagation of a father's genetic material by spermatogenesis. As well, SSC is intended for the treatment of infertility and other purposes, including correction of inherited disorders. Also SSCs can produce embryonic-like stem cells in vitro which could be used as an alternative for therapeutic, diagnostic cases and therefore, improve techniques to manipulate them in vitro as a prerequisite to achieve the mentioned goals. In this study, we sought to optimize culture conditions to maintain the survival and self-renewal of these cells. Recent studies show that inhibition of p53 has positive effect on the viability in some stem cells.

Methods: Germ stem cells extracted from newborn mouse testis then the appropriate concentration PFT-μ, inhibitor of p53 located on mitichondria, determined using the MTT assay and the cells were treated with optimal concentration, then apoptosis was assessed by testing Annexin-V / PI in cells treated with optimal amounts of PFT-μ.

Result: The results showed that cell apoptosis at optimal concentrations decreased in compared with the control group.

Conclusion: PFTμ by inhibiting of p53 located on mitochondria release of Bcl2 and inhibit stems cell death. So spermatogonial cells apoptosis expected to be reduced in the presence PFTμ .

Keywords: Apoptosis, Germ stem cell, Mitochondrial p53 inhibitor, PFT-μ, Spermatogonial stem cell

P300: Identification of ovine ovarian putative stem cells

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Background: The aim of the present study was to characterize ovine ovarian putative stem cells (PSCs) and their probability of the differentiation potential to oocyte like cells.

Methods: In this experiment, the ovaries were collected from two to four years old sheep with the anovulatory phase. Ovarian surface epithelium (OSE) cells were cultured for three weeks, in presence of estrogenic stimuli (phenol red).

Result: Two distinct populations of stem cells with variable size were detected in scraped OSE, one smaller and other bigger. The both cells expressed SSEA-1, SSEA3 and VASA pluripotent and germ cells markers. Those stem cell like underwent to oocyte-like cells differentiation after three weeks culture, with diameter up to 135 μm which were similar to natural ovine oocyte. Some of them expressed zona pellucida-like structure. Beside the immunocytochemistry and Real Time PCR results of oocyte-like showed the expression of ZP3 and C-kit protein and gene. Therefore, it looks that, phenol red cause's size increasing of the stem cells and spontaneous differentiation into oocyte-like structures after three weeks culture. It suggested, estrogenic effects are very important for the development of oocyte-like cells in vitro.

Conclusion: As opposed to the existing view of OSE being a bipotent source of oocytes and granulosa cells,

mammalian ovaries harbor distinct very small stem cell -like PSCs and tissue committed progenitor stem cells population that have the potential to develop into oocyte-like structures in vitro. This study empirically confirms the presence of putative ovarian stem cells in the OSE layer of sheep.

Keywords: oocyte, ovarian stem cell, ovarian surface epithelium, cell culture

P301: Genetic Factor's in ART Failure, Rif, Abortion of Laleh Hospital Infertile Patients

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Background: Nowadays, role of genetic factors which previously were known as unknown causes of ART failures, RIF, Abortion, is very well understood. Men & women & embryonic chromosomal & genetic defects are significantly efficient in Fertilization potential, Cleavage potential, Blastocyst formation potential, implantation potential and abortion potential.

Methods: Male factors; could be evaluated to find spermatogenesis, embryo development & 2 pre nucleuses reprogramming failures, HR Karyotyping, Sperm DNA Fragmentation & Chromatin Assay, Y Chromosomes micro deletion AZF, gr gr, CFTR, epigenetic defects, structural & numerical abnormalities of chromosomes & other genetic test.. Female factors; could be evaluated to find ovugenesis, fertilization potential, embryo formation, pregnancy potential, abortion potential, HR Karyotyping for chromosomal level of abnormalities and also: Thrombosis panel (F II Prothrombin, F V Leiden, MTHFR 1298-677, F XIII, Beta Fibrinogen, Pai1 & others), VDR, FLHR, FSHR, FMR1 & others for ovulation. In addition, viral & non viral infection pathogens must be evaluated by molecular techniques based on its detection limit, accuracy, speed & cost effectiveness to prevent their possible risk for fertilization, implantation & pregnancy lost.

Result: Today's, personalized medicine is shining as the future of medicine and soon or late we must adjust our health & especially ART centers with this novel concept. Starting ART cycles after prepare medical & genetic counseling will increase the success rate & decrease the chance of abortion & abnormalities for babies resulting from ART. In Medical Genetics & Molecular Diagnosis center's of Laleh Hospital we are representing specialized genetic counseling for infertile couples & those who have abortion & family history for congenital & genetic disorders. This study will show 4 years valuable results & foundlings in more than 100 couple & families.

Conclusion: We have found effective result for couples starting their ART cycles after genetic counselling & testing specially those who have more than one unsuccessful art cycles.

Keywords: Abortion, ART Failure, Chromosomes, Personalized Medicine, RIF, SDFA, Thrombosis, Genetic Counselling

P302: The effect of the sopuses, age,s gap on the marital and sexual satisfaction

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Background: Observe proper age gap in choosing spouse, in order to create marital satisfaction has always been emphasized by technical experts. Marital satisfaction is one of the important factors affecting the health of women and one of the most life satisfaction,s indicators in marital life which affects the sexual satisfaction. The aim of this study is to determine the relationship between spouse's age gap on the marital and sexual satisfaction in married women referred to the health centers

Methods: This descriptive correlational study was conducted on 450 married women who had come to the health centers of Iran university.Data was collected by sexual satisfaction and marietal satisfaction questionnaire and analyzed by using SPSS-PC. Chi-square test and Pearson correlation coefficient was used to analyze of data.

Result: The women were average 4.5 years less than their husbands. There was a positive and significant relationship between the marital satisfaction and wives' age (p

Keywords: education, sexual satisfaction, : Marital satisfaction

P304: Evaluating hypothalamic gnrh mRNA expression during different stages of the estrous cycle in a rat model of polycystic ovary syndrome

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Background: Polycystic ovary syndrome (PCOS) is a frequent endocrine and metabolic disorder and the most common cause of infertility occurring in 5% to 10% of women of reproductive age. PCOS animal models showed elevated GnRH/LH pulse frequency. This may result from a number of mechanisms, including alterations in synaptic input to GnRH neurons, desensitization of GnRH neurons to steroid feedback, increased amplitude/frequency of GnRH pulses, and increased gonadotroph sensitivity to the GnRH stimulation.

Methods: RNAs were extracted from hypothalamus of prenatally androgenized (PNA) and non-PNA female rats thought estrus cycle. The gnrh mRNA, gonadotropin and steroid hormone levels, was tested using Cyber-green Real-time PCR and ELISA methods, respectively.

Result: Hypothalamic gnrh mRNA levels was different during estrous cycle, with the highest expression level at the proestrous stage in both groups. In addition PNA rats showed higher gnrh levels at the diestrous than control group. The PNA rats, also, showed disrupted hormonal profile compared to control group.

Conclusion: This study time, investigated the hypothalamic gnrh mRNA expression during different stages of estrous cycle. We demonstrated that the pattern of expression of gnrh mRNA in PNA rats was similar to the pattern in the control group except at the diestrous. PNA rats exhibited higher gnrh levels at the diestrous than control group, which may reflect endocrine abnormalities associated with PCOS phenotype.

Keywords: Gene Expression, GNRH/LH surge, Prenatal androgenization, steroid feedback, PCOS

P305: Bilateral Epididymal Lipectomy Disturbs Mouse Germline Maintenance

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Background: Epididymal white adipose tissue as a repro-supporter structure may regulate Sertoli cells secretory activities. The main goal of current study was to examine the effects of bilateral epididymal white adipose tissue lipectomy (EWATx) on mouse spermatogonial stem cells (SSCs) self-renewal through evaluation glial cell line-derived neurotropic factor (GDNF) expression in testicular tissue.

Methods: Eighteen adult male mice were randomly categorized into three equal groups. Following anaesthesia, one group of mice received EWATx through careful removal of epididymal white adipose tissue pads without damaging the testicular blood supply or nerves. Sham surgery in control-sham mice was consisted of visualization of the pads without isolation/removal. Control animals only received ceftriaxone (100 mg/kg) intraperitoneally at the day of surgical procedures in other groups. The mRNA expression of GDNF was analyzed by reverse transcription polymerase chain reaction (RT-PCR) after 35 days.

Result: Bilateral epididymal white adipose tissue lipectomy resulted in a significant decline in GDNF expression compared to control and control-sham groups.

Conclusion: Our findings highlighted the crucial role of epididymal white adipose tissue in mouse SSCs self-renewal and maintenance.

Keywords: Glial Cell Line-derived Neurotrophic Factor, Lipectomy, Mice, Spermatogonial Stem Cell, Epididymis

P306: Which factors can be considered as predictors of sperm retrieval in non-obstructive azoospermia?

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Background: One of the main concerns in patients with non-obstructive azoospermia (NOA) is the lack of ejaculated spermatozoa and subsequently, the ability to predict the successful recovery of sperm fallowing testicular sperm extraction (TESE) in these patients. Therefore, the study aimed to determine the effect of some factors including the testicular hormone levels, histopathological pattern, the surgical procedure of TESE and chromosomal abnormality in predicting of the TESE outcome (sperm retrieval) and managing of the NOA patients.

Methods: Testis histopathology specimen was classified to hypo-spermatogenesis; maturation arrest (MA); and Sertoli cell-only syndrome (SCOS). In the hormonal assay serum FSH, LH, testosterone and prolactin level were measured. Methods of the TESE, Micro-TESE and Karyotyping were performed according to standard methods.

Result: Our finding displayed that the mean of sperm retrieval in these patients was 48.8%. The rate of sperm retrieval was significantly higher in hypospermatogenesis group compared to others (P

Conclusion: Accordingly, these valuable factors appear to be useful for the counseling of couples regarding the possibility of successful sperm retrieval after invasive surgery of TESE and the decision to perform oocyte pick up in his wife. However, this should not be ignored that hoping to achieve even one sperm maybe lead to perform TESE in these patients regardless of any predictive factor.

Keywords: Azoospermia; Testicular histopathology; sperm retrieval

P307: Views health care providers about prenatal screening

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Background: Considering the importance of prenatal screening as one of the most important parts of health care And the impact of health service providers in view of information and advancing the process of consultation in this process This study was conducted to evaluate the providers' perspective.

Methods: : This descriptive study conducted in 1395 with the participation of 472 Health care workers in Sari . These included 270 general practitioners, 135 midwives and 67 obstetricians and the average age of these participation was 40/50. Data collection in this study is assessment questionnaire which its validity and content validity, content validity by a panel of experts and the methods of internal consistency and retest reliability were satisfied. To analyze the data descriptive statistics (frequency, mean and standard deviation) and inferential statistics (chi-square test to determine the relationship between qualitative variables and analysis of variance between quantitative and qualitative variables) were used.

Result: According to a study carried out 93/8 percent of the participants agreed with the usefulness of screening before birth, 90/5 percent of participants agree with the explanation of prenatal screening methods to clients, 86/5 percent of participants agree with the explanation of abnormalities detected by screening methods available to parents, 17/4 percent of the participants disagreed with the description of the negative consequences of screening techniques for clients And 14 percent of participants were opposed by explaining the predictive value of the test for clients

Conclusion: Considering the importance of midwives and doctors as the first line of contact with pregnant women, It is hoped that this study provide appropriate feedback to policymakers in the field of health to improve the prenatal screening process

Keywords: health care providere, informed choice, prenatal screening

P308: The Role of orexin A and nesfatin - 1 in pregnancy and endometriosis in humans

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Background: orexin A and nesfatin - 1 involved in regulating metabolism and Insulin sensitivity and Various organs of the body. This review aims to summarize studies The Role of orexin A and nesfatin - 1 in pregnancy and endometriosis in humans.

Methods: In this study, 140 article through electronic search in databases Pubmed, Google, Google Scholar, Yahoo, Iran Medex, Science Direct, SID , the period of 1998 to 2016 was finally examined 20 articles.

Result: The Results showed that there are nesfatin and orexin A in placenta and secretion and involved in the regulation of energy metabolism and diabetes and fetal development in pregnancy. However, two hormones are expressed in the endometrium. Reduce the level of Nesfatin - 1 (effect reducing anti-inflammatory and anti-apoptotic) and increases blood flow at increased vasodilatation are to the lesions of endometriosis And reduce its level does not depend on the degree and severity of endometriosis .orexin A role is unknown in endometriosis .

Conclusion: Studies have shown that orexin A and nesfatin - 1 involved in improving pregnancy And nesfatin - 1 plays a role in reducing endometriosis.

Keywords: nesfatin – 1 and endometriosis, nesfatin - 1 and pregnancy , orexin A and pregnancy

P309: Orexin A role in regulating energy metabolism and metabolic syndrome in pregnancy and later in humans: a systematic review

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Background: orexin A involved in regulating metabolism and energy balance, Desire and appetite and food acceptance , Reproduction and nightlife and stress. This review aims to summarize studies orexin A on the regulation of energy metabolism and metabolic syndrome in pregnancy and later in humans.

Methods: In this study, 140 article through electronic search in databases Pubmed, Google, Google Scholar,

Yahoo, Iran Medex, Science Direct, SID , the period of 1998 to 2016 was finally examined 10 articles.

Result: The Results showed that, orexin A compared to non-pregnant, pregnant woman is increased in the brain and human placenta from 27 to 40 weeks of pregnancy, And be secreted And play important role in the regulation of energy metabolism and appetite during pregnancy by changing eating pattern and achieve proper weight And on the other hand, increased insulin sensitivity and increased glucose metabolism and reduce diabetes, hyperlipidemia loss, lower blood pressure and reduce heart disease - is vascular, As a result of reduced metabolic syndrome in pregnancy and later in humans.

Conclusion: Studies have shown that, , orexin A plays a role in the regulation of energy metabolism and appetite during pregnancy in humans , And reduce the metabolic syndrome in pregnancy and later in humans .

Keywords: energy metabolism, metabolic syndrome, pregnancy, orexin A

P310: The importance of postpartum screening of diabetes in women with gestational diabetes

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Background: Diabetes is a metabolic disease which is often asymptomatic at early stages and chronic increase in blood sugar causes damage to various organs. Gestational diabetes is one of the most common pregnancy problems and these women are at risk of type 2 diabetes. The risk of overt diabetes in women with gestational diabetes increases 7 times. The patients are also at risk of cardiovascular complications associated with dyslipidemia, hypertension and abdominal obesity (metabolic syndrome). According to costly complications caused by this disease, early diagnosis will prevent or postpone complications and disorders and also it is economically affordable. “The Fifth Conference on Gestational Diabetes Workshop” advised that women with gestational diabetes should be evaluated 6-12 weeks after delivery and then at specified times with 75-gram OGTT. So this study was conducted to show the importance of diabetes screening during postpartum period in women with gestational diabetes.

Methods: This review study was conducted with information about the subject in resources and scientific sites.

Result: Studies show that 30-70% of women with gestational diabetes have type 2 diabetes in the future and the risk of overt diabetes within 20 years after delivery is 50 percent. Despite recommendations, studies show that only 37 percent of women with gestational diabetes accomplish diabetes screening during postpartum period and most of them do not go for screening at all.

Conclusion: Due to the fact that postpartum screening of diabetes is very important, it is recommended that test must be performed on all members of this group and women should be trained in this context.

Keywords: Postpartum, Gestational diabetes, Diabetes

P311: The effect of maternal hypothyroidism on pregnancy outcomes

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Background: Hypothyroidism is a common problem during pregnancy. Sometimes, it is asymptomatic, sometimes its symptoms are fatigue, cold intolerance, constipation and weight gain that are the same with normal signs of pregnancy. Also, normal thyroid hormone changes in pregnancy can be confused with hypothyroidism. Women with hypothyroidism are at

increased risk of pregnancy complications. The adverse effects of clinical hypothyroidism are greater than subclinical type. So, this review study was conducted to evaluate the effect of maternal hypothyroidism on pregnancy outcomes.

Methods: This review study was conducted with information about the subject in resources and scientific sites.

Result: The results of various studies indicate that the effect of hypothyroidism in pregnancy depends on illness severity. Maternal complications of hypothyroidism in pregnancy include increased rates of preeclampsia and gestational hypertension, diabetes, placental abruption, preterm labor, premature rupture of membranes, anemia, impaired heart function, cesarean section and postpartum hemorrhage. Fetal and neonatal complications of hypothyroidism in pregnancy include increased rates of fetal distress, prematurity, low birth weight, intrauterine growth retardation, stillbirth, neonatal death and neurological disorders in fetus. Also, in cases that the woman is suffering from hypothyroidism before pregnancy, spontaneous abortion increases in the first trimester.

Conclusion: Due to the fact that hypothyroidism during pregnancy is associated with adverse complications in mother and fetus, diagnosis and treatment is essential in early pregnancy. To achieve optimal results it is recommended that diagnosis and treatment start before pregnancy.

Keywords: Complication, Pregnancy outcomes, Hypothyroidism

P312: Ghrelin regulates bax and PCNA but not Bcl-2 expressions following scrotal hyperthermia in the rat

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Background: We have reported the beneficial effects of ghrelin in improvement of histopathological features of the rat testis following local heat exposure. However, the exact mechanism of apoptosis- and proliferation-specific proteins in this regeneration process remained to be explored.

Methods: Thirty adult male rats were allotted for the experiment and subdivided into three groups: control-saline (CS), heat-saline (HS) and heat-ghrelin (HG). The scrota of HS and HG groups were immersed in water bath at 43ºC for 15 min. HG animals received 2 nmol of ghrelin every other day until day 60 and saline to the other groups. The testes of all groups were taken after rat killing on days 30 and 60 after heat for immunocytochemical detection of pro-apoptotic factor Bax, anti-apoptotic protein Bcl-2 and proliferation-associated peptide PCNA in the germ cells.

Result: Ghrelin could significantly suppress the bax expression in spermatocytes compared to the HS group on day 30. The mean percentages of spermatogonia containing bax substance were lower in ghrelin-exposed animals, however, the differences were not significant. There were immunoreactive cells against Bcl-2 in germ cell neither in the control nor in the heated animals. In contrast, the number of PCNA immunolabeling cells was higher in HG group compared to other animals. Down-regulation of bax expression concurrent with overexpression of PCNA in HG group indicates the ability of ghrelin in acceleration of testicular germ cells regeneration following heat stress.

Conclusion: These findings indicate that ghrelin may be used as a novel antioxidant agent to induce resumption of spermatogenesis upon environmental heat exposure.

Keywords: Bax, Bcl-2, PCNA, Testis, Ghrelin

P313: Protective effect of royal jelly and vitamin C on sperm parameters and in vitro fertilization in mice with hemolytic anemia

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Background: Hemolytic anemia induced by Phenyl hydrazine (PHZ) can cause disorders in fertility and spermatogenesis. This study aims to assess the effects of vitamin C and royal jelly as a protective antioxidant compounds against the PHZ-induced hemolytic anemia.

Methods: 32 adult male mices were divided randomly into four groups (n=8). The first group received 0.1 ml/day of saline intraperitoneally (IP).The second group received 60 mg/kg/48-hours of phenyl hydrazine IP. The third group received along with phenyl hydrazine, 250 mg\kg\day of vitamin C IP and 100 mg\kg\day of royal jelly by gavage. The fourth group received the same doses of vitamin C and royal jelly as the third group. After 35 days, serum samples were obtained, the sperms were collected from epididymis and in-vitro fertilization (IVF) was evaluated.

Result: The results of this study showed that the hemolytic anemia induced by PHZ significantly decreased serum testosterone concentration and at the same time increased the amount of nuclear DNA damage and immature nucleuses sperms. Also decreased the number of fertilized oocytes, two-cell and four-cell embryos, morula, blastocyst and arrested embryos. However, administrating of royal jelly and vitamin C improved these parameters significantly (p

Conclusion: It seems that royal jelly and vitamin C as free radical scavengers have the potential to decrease oxidative damages on reproductive organ in hemolytic anemia induced by PHZ.

Keywords: In vitro fertilization, Phenyl hydrazine, Royal jelly, Sperm parameters, Vitamin C, Hemolytic anemia

P314: Factors associated with ethical Challenge in embryo donation from donor's perspective

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Background: Embryo donors' perspective as one of the major components in assisted reproductive therapies could be a foundation adopting policies and decisions regarding embryo donation. This study aimed at determining the ethical issues and associated factors in embryo donation from perspective of donors

Methods: This descriptive-analytical study was carried out among 96 couples visiting Isfahan Fertility and Infertility Center and Royan Institute in 2016. Participants were recruited using convenience sampling method. An embryo donation ethical issues questionnaire developed by the researcher based on the four principles of bioethics was used. Data analysis was performed by SPSS software, 16 using Pearson and Spearman correlation tests, independent t-test and One-Way ANOVA.

Result: Data showed that justice was considered as a more important ethical challenge in embryo donation from donors' point of view as compared to other factors. A significant inverse association between educational level of female donors and ethical challenge score in justice principle (p

Conclusion: Based on the results, it is suggested that ethical-legal guidelines are developed considering factors such as the minimum interests of donors, regulations, experiences and new policies in countries providing these services, religious and cultural norms in the society and needs and interests of involved individuals especially the resultant child.

Keywords: embryo donors, ethical Challenge, perspective, embryo donation

P315: Surrogacy contract in jurisprudence, law and ethics

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Background: Surrogacy is an arrangement whereby a woman (called a surrogate mother) agrees to carry a pregnancy for another persons, who will become the newborn child's parents after birth. Despite the implementation of such common assisted reproduction technique, some aspects of jurisprudential, legal and morality are controversial from a different perspectives.

Methods: Library Studies

Result: From the perspective of jurisprudence and legal, duty and situational aspects, due to exigency, lack of prevention and principle of party autonomy, ruling on the validity of the contract. From the perspective of moral philosophy, surrogacy contracts in accordance with the theories of libertarianism and utilitarianism is fair in order to maximize the happiness and satisfaction, and increase public welfare. Because it results in the interest of both parties. But normative attitude doesn't agree with the valuation of human by worldly things. They believe that, surrogacy contracts lead to decline the human elevated position of woman and, mother norm will be changed to normal production and commercial breeding. In addition, her conscious choice would be defective, because, utility of surrogacy owner, at the time of signing the contract, due to lack the mother sense and emotional conditions, definitely is created after embryo transfer and just done with economic motivation. So it's conflict with the theory of libertarianism.

Conclusion: In consideration of the views, it can be stated that the surrogacy contract, is valid in terms of jurisprudence and law and agrees with morals.

Keywords: ART, Law and Ethics, Libertarianism, Utilitarianism, Surrogacy contract

P316: The Role of Sertoli Cells on gene expression of GDNF and FGF2 after Removal of Spermatogonial Stem Cells from the Culture Medium

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Background: complex process of spermatogenesis is regulated by various factors. Several studies have been conducted to proliferation these cells in culture by used growth factors, different hormones and feeder cells.

Methods: . This study was conducted to evaluate the role of Sertoli cells on gene expression of GDNF and FGF2 after removal of SSCs from the culture medium. Following isolation, bovine SSCs were co-cultured with Sertoli cells and FSH for 12 days. In the treatment group, SSCs were removed from the culture medium; in the control group no intervention was done in the culture. Colony formation of SSCs was evaluated by using an inverted microscope. Then, the expression of factors genes were assessed by quantitative RT- PCR.

Result: The results showed that removal of SSCs led to the increase in expression of GDNF and FGF2.

Conclusion: These findings suggests that loss of SSCs population or decline in its population leads to changing in behavior of somatic cells which forming niche and consequently stimulates self-renewal and inhibits differentiation of SSCs.

Keywords: FSH, gene expression, Sertoli cells, SSCs, Calves

P317: Bitter Apple Retains Testicular Cellular Integrity in Doxorubicin-exposed Mice

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Background: Testiculopathy is one of the major limitations of doxorubicin (DOX) application in chemotherapy strategies. The goal of this study was to reveal the possible repro-protective properties of Citrullus colocynthis pulp hydroalcoholic extract (CCE) against DOX-induced testicular histoarchitectural disintegration in mice.

Methods: A total of 36 adult male mice were randomly divided into groups of 6 animals per group. Doxorubicin was administered to four groups of mice in 6 equal intraperitoneal injections over a period of 5 weeks (accumulated dose of 9 mg/kg). Three DOX-treated groups received CCE at a dose of 50, 100 and 200 mg/kg intraperitoneally four hours after DOX treatment, respectively. Vehicle-treated control group and CCE-only treated group were also included.

Result: The DOX-only treated mice exhibited conspicuous hypospermatogenesis and noticeable destructive changes in testicular tissue. However, testicular histoarchitecture was markedly protected by CCE co-administration in a dose-dependent manner.

Conclusion: The present study finds that DOX-evoked testicular degeneration in mice could be ameliorated by CCE treatment, offering new insights into complementary medicine.

Keywords: Doxorubicin, Histology, Mouse, Testis, Citrullus colocynthis

P318: An Ultrastructural Study of the Antioxidant Effects of Vitamin E and Fennel Extract on Zona Pellucida Cell Changes of Rat Ovaries under Non-Ionizing 50Hz Electromagnetic Fields

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Background: Everyday use of various electronic tools and appliances has caused a large number of people to constantly be under the influence of electromagnetic fields (EMFs).

Methods: For the purpose of this study, 40 female rats were randomly selected from the animals' laboratory. The rats chosen for the study were 3 months old and weighted 20 + 200 g. The animals were then randomly divided into 4 groups; Control (n = 10), Experiment 1 (n = 10), Experiment 2 (n = 10), and Experiment 3 (n = 10). During the experiment, all 4 groups were maintained in the same conditions and received the same feeding procedure. Test groups 1, 2, and 3 were under the influence of a 50 Hz EMF for 8 weeks. Subsequently, the second and third groups were kept away from the effects of EMF for another 8 weeks. At the end of the study, after removing the ovarian using glutaraldehyde, they were prepared for electron microscopy study. Ex2 group rats were not sacrificed, and were maintained for another 8 weeks in normal laboratory environment away from the impacts of EMF. The rats were fed vitamin E (100 mg/kg) and fennel extract (1.5 gr/kg/body weight) was added to their daily food. Samples were taken from this group at the end of the second 8 weeks. Samples from the Ex3 group were taken at the end of the second 8 weeks which were maintained in normal conditions without the use of vitamin E and fennel extract. The 10 rats from the control group were biopsied simultaneously with the Ex1 group sampling.

Result: This study showed that in the groups that had been exposed to electromagnetic radiation, zona pellucida cells had lost their microvilli and mitochondrial crystal structure. In the groups that were exposed to vitamin E and fennel extract, these changes were reduced.

Conclusion: The use of vitamin E in combination with fennel extract can reduce the damaging effects of non-ionizing radiation with 50 Hz frequency on the zona pellucida cells of rat ovaries.

Keywords: Fennel, Ovary, Vitamin E, Electromagnetic Field (EMF)

P319: Summer Savory Effectively Combats with Anti-androgenic Activities of Doxorubicin in Rats

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Background: Doxorubicin (DOX), one of the most efficient anti-cancer agents widely used in oncology protocols, is associated with a higher risk of gonadal damages. The aim of this study was to disclose the androgenic consequences of Satureja hortensis hydroalcoholic extract (SE) administration in DOX-exposed rats.

Methods: Twenty-four adult male Wistar rats were randomly allocated to four equal groups. Doxorubicin was administered to two groups of rats in 5 equal intraperitoneal injections over a period of 4 weeks (accumulated dose of 20 mg/kg). One of these groups received SE at a dose of 100 mg/kg per day subcutaneously for 28 days along with DOX. A vehicle-treated control group and a SE control group were also included.

Result: Doxorubicin therapy resulted in significant reductions in serum concentration of testosterone and Leydig cell numbers. Notably, SE co-treatment markedly inhibited anti-androgenic activities of DOX.

Conclusion: Although our findings are based on a rodent model, the results highlight the fact that SE can be a promising agent against DOX-related androgenic disturbances.

Keywords: Doxorubicin, Leydig Cell, Rat, Testosterone, Savory

P320: A Study of the Effects of Nutrition on Male Infertility

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Background: Male infertility is a disorder that is of the essence from the social and familial aspects and millions of people around the world live with the disease. So, the present systematic review study aimed to investigate the effects of nutrition on male infertility.

Methods: In this study, the archives of PubMed, Scopus, Google Scholar and Science Direct were checked using the keywords of "Nutrition", "infertility", "quality of sperm and semen "and "antioxidants and infertility."

Result: The results were indicative of the major role of nutrition in improving the function of sex organs. Fatty acids that are available in vegetable oils, oil seeds and nuts are required for keeping the harmonic balance. The complex of Zinc and Vitamin B are vital for the suitable metabolism of hormones in sex organs as well as sperm production and mobility. Antioxidants such as vitamins C, E, A and Glutathione are essential for increasing the viability and mobility of sperms and increasing the blood flow to sex organs. The sperm production and mobility are increased by vitamin C through preventing oxidation of sperms, protecting the membranes of cells in testicles, and reducing the level of free radicals. On the other hand, fast foods and smoking reduce the chances of fertility through inhibiting the reproductive hormones.

Conclusion: The results were indicative of the extraordinary ability of nutrition to increase male fertility. To adjust nutrition is the first intervention that should be adopted for infertile patients. In the end, fertility and nutrition are two members of inseparable.

Keywords: Male infertility, Sperm quality, Nutrition

P321: Proliferative Ability of Human Spermatogonial Stem Cells in in-vitro condition

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Background: The primordial spermatogonia can resume spermatogenesis process after testicles damages caused by poisonous materials or after their cell fusion with an infertile receptor cell. Therefore, the self-renewal of these cells guarantees the preservation of their cell population and results in protection of fertility. Distinction of primordial

spermatogonia markers makes the separation of this cell population possible . Preservation and cell culture of the primordial spermatogonia has been propounded as a method to treat some infertility disorders in human in the future.

Methods: Isolation and purification of human spermatogonial stem cells cultured in viro

Result: molecular mechanisms of self-renewal, a perfect tool to discover new tretments for some infertile men or for patients undergoing chemotherapy /radiotheraoy, before or after puberty.

Conclusion: Spermatogenesis by endocrine factors and growth factors autocrine / paracrine testicular set. These factors Sertoli cells, germ cells, the tubular cells and interstitial cells (mainly Alydyg cells and macrophages) are produced. And the interaction between Sertoli cells and germ cells in the seminiferous tubules, causing succeeds in spermatogenesis. Recently, a number of important growth factors such as LIF, SCF and GDNF for proliferation and differentiation of spermatogonial stem cells, have been identified. As well as markers to identify these cells have been reported. Several research groups in the field of long-term cultivation and enrichment of spermatogonial stem cells to have gained some success. Therefore, the cultivation of spermatogonial stem cells, in addition to helping understand the molecular mechanisms of self-renewal, a perfect tool to discover new treatments for some infertile men or for patients undergoing chemotherapy / radiotherapy, before or after puberty

Keywords: spermatogonial, cell culture

P322: DROSHA Gene Polymorphism and Recurrent Miscarriage

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Background: Unexplained recurrent pregnancy loss refers to three or more abortions before 20 weeks gestation that approximately occurs in about one percent of the total number of couples. Drosha and Dicer are important molecules that have been identified in the trophoblast cells that confirm the activeness of biologic processes in micro RNA. Single nucleotide polymorphism in the Drosha (rs10719;C>T) encoded gene might be to produce the dysfunctional enzyme which was involved in the implantation process and leads to the pregnancy loss.

Methods: We were designed a case-control investigation in the 100 subjects with unexplained recurrent pregnancy loss and 100 women with at least one child and without historical abortion as a control group. After DNA extraction, we used PCR-RFLP technique, in order to clarify the association between Drosha polymorphism and recurrent pregnancy loss.

Result: Our findings revealed that the frequency of genotypes in the Wild-type homozygote (CC), heterozygote (CT) and mutant homozygote (TT) of Drosha in patients and healthy women,8%, 49%, 43% and 3%, 70%, 27%, respectively.Statistical analysis was shown significant difference genotype frequencies between cases and control groups (p=0.033).

Conclusion: The present study revealed that polymorphism of Drosha gene can be a predisposing factor for recurrent pregnancy loss and also can be considered as a molecular biomarker in forewarning of recurrent pregnancy loss.

Keywords: Drosha, micro RNA, Recurrent Miscarriage, Recurrent pregnancy loss, Polymorphism

P323: Exportin5 gene polymorphism and recurrent pregnancy loss

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Background: Unexplained recurrent pregnancy loss refers to three or more abortions before 20 weeks of gestation. Exportin5, is one of the crucial molecules that has been identified in the trophoblast cells of the

placenta, which was involved in the biogenesis and processing of Micro-RNA. Human embryo produced a large number of micro RNAs, which were involved in fetal development. One of the important molecules that has been identified in the trophoblast cells of the placenta is Exportin5, involving the biogenesis and processing of micro RNA. Single nucleotide variation in Exportin5 gene (rs2257082;C>T) encoded could change the quality of micro-RNA processing and affect pregnancy outcome.

Methods: In the present study, we included 100 women with unknown recurrent pregnancy loss as case group and 100 women that have an at least one live child without abortion history were selected as a control group. After DNA extraction, we applied PCR-RFLP method for molecular genotyping of this polymorphism between both groups.

Result: Our findings revealed that the frequency of genotypes in the wild-type homozygote (CC), heterozygote (CT) and mutant homozygote (TT) of Exportin5 in patients and healthy women were 27%, 71%, 1% and 16%, 83%, 1%, respectively. Statistical analysis has shown significant differences in genotype frequencies between cases and control groups (p=0.045).

Conclusion: The present study revealed that polymorphism gene of Exportin5 can be a predisposing factor for recurrent pregnancy loss, and also can be considered as a molecular biomarker in forewarning of recurrent pregnancy loss.

Keywords: Exportin5, Recurrent pregnancy loss, Polymorphism

P324: Rental womb of Islam and Shiite

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Background: Background : Introduction: infertility, many couples throughout the world suffer. Doctors in different countries trying to treat infertility infertility treatment has many different Hstnd.rvsh a child or hopes for the future on hold. One of the methods "rent-a-womb" that the positive and negative aspects of lead had.

Methods: Rental uterus is a form of fertility treatment that has developed in recent years in Iran.they rented it in the womb that he "rented mother" or "surrogate mother" they say. He is nine months in spite of all the children that the child is not his

Result: 2- The method of using a rented womb positive aspects - Reduce the divorce rate in the country and solve the problems of infertile couples - Offspring genetically It has all the characteristics of sperm owners and parents of illegitimate methods or adoption is preferred

Conclusion: The method for women who are not ovulating and other reasons for infertility are problems helps. The high percentage of infertility problems can be solved. - In terms of psychology and psychiatry has been almost 15 years that have been made in the case of a rented womb assessment (up to approximately "four thousand cases) and injuries suffered possibility that volunteers may have been studied, but still no certain injuries were reported.

Keywords: Key words : Rental womb / infertility / Islam and Shiite

P325: Muslim views on violence against women

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Background: Background: United Nations General Assembly in 1993 adopted the Convention on the Elimination of Violence against Women. The Convention on violence against women includes any act of violence that for definite or probable cause injury or suffering physical, sexual or psychological,

can be done in public life or private life, and on the other hand the threat of violence , the authority and arbitrary deprivation of freedom, including cases of violence are considered. According to the UN document is divided into different types of violence against women. This study aimed to assess the position of Islam on violence against women in Islamic societies is done. Women for one semester has been done.

Methods: A review of studies: • Depending on the type of violence can apply it to a variety of sexual, psychological, physical, economic, or emotional be split. • Based on the victim (of sexual abuse, sexual harassment and rape) Prophet Muhammad (salvat) about love and compassion to children and women states: "They stamped their children to love and respect to the person and to the people who use them have fulfilled Allah's wrath will not be anything for the sake of women and children anger, as it is" The issue of Iran:According to studies, women abuse in the county and is more between Tehran and the above-mentioned cases among women with less education than the control group.

Result: Results: According to verses and traditions and authentic Hadith, as well as legal opinions, shall: 1. Remembrance of Allah and keep calm spirit (2) Strengthen the deterrent factor 3. to recognize the rights of all people in the family, especially women and children 5. Abstain from vices 6. Cultivate moral virtues and treatment of mental illness in the family 7. Return to the self and identity 8. Abstain from following the western culture and propaganda Satellite (Satellite de) 9. Legislation preventing the use of force and police in certain cases

Conclusion: Conclusion: avoid sin and to recognize the rights of others, especially our basic principles of Islam and Muslims and Shiites. More joyful and more lively. Research has proven that children raised in families without stress, improve self-confidence and personal growth and their future more prosperous and more peaceful.

Keywords: Muslim views , violence against women

P326: Client's Attitude Towards legal and Ethical Aspects of Egg Donation in a Health Center of Tehran

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Background: Background: Gamete donation is one of the technologies associated with infertility treatment. Some couples due to lack of response of the ovaries and ovulation disorders, are deprived of having children. With egg donation, they could experience having children in life. The aim of this study was to determine Client's Attitude towards egg donation from legal and ethical aspects in a health center of Tehran.

Methods: Methods: This study was a descriptive cross-sectional survey that was conducted in 2016. The participants included 160 people when received the questionnaire.

Result: Results: In this study, 160 people, including 50 males and 110 women participated, with an average age of 35±10 years. 91/3% of participants were married. Acceptance Frequency of donated eggs among the subjects was 58.7%. Using Egg Donation if necessary for themselves was 42%. 60.7% of participants was agreed with knowing the identity of the donor. 56% of participants disagreed with donors identity inscribed in the child's birth certificate. Frequency of clients' attitudes about the need for legislation protecting the rights of the parties was 66.7%.

Conclusion: Conclusion: The results show, the majority of participants agreed with the legalization of this issue to prevent future problems, but, is needed to work much cultural, till moral rights of children are protected from this type of fertility. So, strong and precise laws have to be enacted, to the complexity of the problems in this issue.

Keywords: Attitude, Civil Rights, Egg Donation, Pregnancy., Key words: Infertility

P327: A review of anembryonic gestation

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Background: Pregnancy is one of the physiological changes in the human body that sometimes due to abnormalities lead to abortion and this process doesn't to end. One uncommon reason of abortion is anembryonic gestation but it's rising in Pregnancies, which refers to the state that the zygote is formed but its growth rate will stop. The aim of this study is review the cause of anembryonic gestation.

Methods: this study is a review of the scientific bases, through Search in Sciencedirect, Pubmed, as well as books and other authoritative scientific sources since 2005.

Result: Genetic abnormalities are the most common reason of anembryonic gestation. Also the hypothesis that blood copper levels in the first trimester lead to anembryonic gestation was rejected. In a study HSP (Heat shock proteins) proteins has been viewed in anembryonic gestation. In some studies the relationship between radio waves and HSP proteins were confirmed but the relationship between anembryonic gestation and radio waves is unknown. In two studies the reason of early abortion decrease levels of angiogenic markers like as tyrosine kinase and Presence of Hofbauer cells in the placenta knows. Also Level variations of the Anti-müllerian hormone can lead to early abortion that for treatment of this condition Dydrogesterone was recommended.

Conclusion: According to studies, many causes considered for anembryonic gestation but still properly the reason of this phenomenon is unknown.

Keywords: Abortion, Anembryonic gestation, Blighted Ovum, Pregnancy

P328: Effect antioxidant β-mecaptoethanol and cysteamine on the viability IVM/IVF and promotion embryo cumulus-oocytes(COCs) and denuded oocytes(Dos) mouse NMARI

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Background: Growth and development oocytes outside the body are one of the new procedures used in assistive technology. This is particularly for many women who are not able to mature theirs oocytes in vivo such as patients with polycystic ovarian, cancer, women with immature follicles and women polycystic ovary syndrome are best suited method. In this research determined relationship of β-mecaptoethanol and cysteamine with and without cumulus with promotion embryon in treatment infertility

Methods: in this study 4-6 week immature NMARI mice were used.Animal mainted in standard condition. Then used 7.5 unite PMSG (pregnant mare serum gonadotropin) for ovaries stimulation. After 48h mice were killed with dislocation of cervical vertebrate.GV oocyte with and whitout cumulus cells isolated from ovaries and cultured in 2 medium TCM199 and TCM199 in addition 100 µm BME & CYS for 24 h. mature oocyte (MII) were fertilizated with sperm in T6 medium (IVF).stages of development oocytes as 2cell,4cell,8cell and blastocyst by inverted microscope and were evaluted by statistical analysis. Also this research was supported univercitiy medicine yasuj.

Result: The results showed that the rate of embryo development in medium contain antioxidants, compaire to without antioxidants medium,highest oocytes development. addition antioxidant β-mecaptoethanol and cysteamine ,the development of the fetal has increased (P

Conclusion: cumulus cells play important role in vitro maturation and subsequent development. Thiols GSH level increased and Glutathione is formed. Glutathione improve development embryon and blastocyst. This method appropriate in the center of infertility treatment.

Keywords: GSH(gluthathione), in vitro fertilization, B-mercaptoethanol, in vitro maturation

P329: Study the relationship between self efficacy and quality of life and comparing

them in polycystic ovary syndrome and healthy women

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Background: Polycystic ovary syndrome(PCOS) is one of the most common endocrine disorders among women of reproductive age with high prevalence and different metabolic, reproductive and psychological consequences that clarify the necessity of doing research in this regard. The aim of this study was to Study the relationship between self efficacy and quality of life and comparing them in polycystic ovary syndrome and healthy women.

Methods: This research was done made use of a causal-comparative method with 129 women with polycystic ovary syndrome and 125 healthy women. Available sampling method was emoloyed using Rotterdam criteria. Women of both research and control groups responsed to the WHOQOL- BREF and GSE – 10 questionnaires. Data were then analyzed with SPSS software version 20 using statistical methods including pearson's coefficient , regression, T-test and multivariate analysis of variance.

Result: According to Findings, quality of life was significantly lower in research group than healthy group (p

Conclusion: It seems to be essential to increase awareness, screening and referring process in order to take advantage of the advisory services to improve psychological factors in PCOS and healthy groups.

Keywords: Healthy Women, Quality of life, Self efficacy, Polycystic ovary syndrome(PCOS)

P330: Evaluation of BMI index and incidence of varicoceles in men referred to urology clinic in Bandar Abbas

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Background: Varicocele is one of the controversial topics in the field of male infertility. Correcting the varicoceles is considered as a useful alternative treatment for infertility associated with varicocele, but its effects have been discussed for several years. Previous studies signifies the role of body mass index in creation and development of varicocele. Since varicocele is the most common curable in infertile men, determine related factors, particularly the role of body mass index can be useful in the treatment and prevention of probabilistic infertility.

Methods: This research is a descriptive cross sectional study before and after, which evaluated 120 patients with varicocele. Participants were evaluated in terms of semen analysis, serum levels of FSH, LH, testosterone and body mass index. Data were entered into statistical software SPSS.18 then paired t test and independent t test was used for statistical analysis and p-value less than or equal to 0.05 was considered significant.

Result: 120 patients were evaluated, with an average age and BMI were respectively 6.56 ± 29.23 and 3.85 ± 22.37. Average serum levels of FSH and LH respectively was 14.75 ± 8.13 and 4.25 ± 7.22, which was statistically significant difference (0.325 p =). Mean testosterone level also was 1.32 ± 3.56.

Conclusion: as regards participants with high BMI were more conflict with varicocele, it was expected that to see similar results with previous findings, But in this study demonstrated people with a BMI less cases of varicocele. These results are probably due to the type of businesses and individuals working in this area with very hot weather conditions so that the patients were more men with military careers and fishermen who had a BMI lower, and with varicocele.

It is suggested that future studies with larger sample sizes and further extensive job be examined.

Keywords: body mass index, Semin analysis, varicocele

P331: To Assess the association between metabolic aberration and PCOS

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Background: Polycystic ovary syndrome (PCOS) is a common endocrine disorder associated with obesity. Human and animal studies showed a direct relationship between leptin level and obesity, however, results from different studies were mixed. This study investigated the status of leptin level in PCOS and its relationship with body mass index (BMI) in a group of Iranian women with PCOS.

Methods: In this cross-sectional study, 40 women with PCOS and 36 healthy women were assigned to experimental and control groups, respectively. Those in the PCOS group were not prescribed any medications for 3 months prior to the study. Fasting blood samples were then collected during the 2nd or 3rd day of menstruation for laboratory measurement of serum total leptin, blood glucose (fasting blood sugar), serum insulin, follicle-stimulating hormone, and luteinizing hormone (LH).

Result: Mean BMI of the PCOS and control groups were 26.62 ± 4.03 kg/m2 and 23.52 ± 2.52 kg/m2, respectively (P= 0.006). The mean total leptin in the PCO group was also 10.69 ± 5.37 ng/mL and 5.73 ± 2.36 ng/mL in the control group (P = 0.0001). A significant relationship was found between leptin level and BMI as well as LH level among women with PCOS (P < 0.05). However, there was no significant correlation between leptin and insulin (P> 0.05).

Conclusion: The results of this study indicated an increased leptin level among women with PCOS that positively associated with BMI and LH.

Keywords: insulin, leptin, polycystic ovary syndrome, Body mass index

P332: Serum of spayed female dog and superovulation response in rat and mice

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Background: The researchers are trying to find and improve production process of superovulation hormones. In spayed female dogs due to loss of negative feedback of estrogen and progesterone, FSH concentration increase in serum. It may induce superovulation by stimulation of follicular development.

Methods: Rats at diestrus stage aligned in PMSG group (30 IU PMSG, 48 hours later, 25 IU of hCG), rFSH group (for 48 hours, once every 12 hours by reducing dose of 5, 4, 3, 2 and 1 unit rFSH, and 25 units of hCG with last injection) and group of dog's serum (for 48 hours, once every 12 hours by reducing dose of 0.6, 0.4, 0.3, 0.2 and 0.1 ml, and 25 units of hCG with last injection). Three groups of mice were PMSG (at 13pm, 5 units of PMSG, 48h later 5 units of hCG), rFSH (from 13pm, for 48 hours once every 12 hours and reduce dose of 2.5, 2, 1.5 , 1 and 0.5 units of rFSH, 5 IU hCG with the last injection) and serum of anestrous dog (from 13pm, for 48 hours every 12 hours and reduce dose of 0.1, 0.075, 0.05, 0.03 and 0.025 mL, 5 IU hCG with the last injections). Immediately after hCG injection, females were placed at a ratio of 1 to 1 with males for 24 hours. On day 14 after mating, animals were killed by cervical dislocation and ovarian samples fixed in buffered formalin 10% for histopathological evaluation and corpus luteum counting. Data analyzed with Graphpad

Prism software version 6 and One way ANOVA and Turkey's test. The significant level considered P

Result: There was no significant difference among rats groups (P=0.066). Also, mean differences between rat groups were not significant (P>0.05). The number of CLs was significantly differed among mice groups (P=0.0057). The mean number of CLs between FSH and dog serum (P=0.01) and PMSG and FSH (P=0.0182) showed significant differences.

Conclusion: Serum of spayed female dog could not induce superovulation in rats but it could induce superovulation response in compare with PMSG in mice.

Keywords: hCG, PMSG, spayed dog serum, Superovulation

P333: Effect of different levels of soybean lecithin and egg yolk on the motion parameters of goat spermatozoa after freezing – thawing

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Background: In recent years, several studies was performed about the effect of soy lecithin on sperm cryopreservation Including, goat(Jiménez-Rabadán, Ramón et al. 2012, Roof, Bowley et al. 2012, Salmani, Nabi et al. 2013, Salmani, Towhidi et al. 2014), ram (Sharafi, Forouzanfar et al. 2009, Forouzanfar, Sharafi et al. 2010, Valle, Gómez-Durán et al. 2012), human (Reed, Ezeh et al. 2009) and cat (Vick, Bateman et al. 2010). Data between studies are different and various and optimal level of soy lecithin as a standard level is not known. Therefore, the aim of this study was to determine the optimal level of soy lecithin as a suitable alternative to egg yolk freezing goat semen. Sperm motility and motion parameters, the percent of normal sperm, plasma membrane integrity and apoptosis were assessed for evaluation of extenders containing different concentrations of soybean lecithin

Methods: All chemical reagents were obtained from Sigma (St. Louis, MO, USA) unless otherwise indicated. For this study, six ejaculates from each goat were collected by artificial vagina twice a week during the breeding season from four mature Mahabadi bucks (3 and 4 yr of age) known to have good fertility. volume varying between 0.75 and 2 mL, sperm concentration of 3 × 109 sperm/mL, motile sperm percentage higher than 70%, and less than 10% abnormal sperm. To eliminate individual differences, semen samples from the four bucks were pooled. Each pooled sample was split into five equal aliquots and diluted with five extenders. The basic extender used in this study was composed of 30.7 g tris (Merck, Darmstadt, Germany), 12.6 g fructose (Merck) and 16.4 g citric acid (Merck). The osmolarity and pH were set at 420 mOsm and 7.2, respectively. Five different extenders were prepared by the addition of 1%, 2%, 3% and 4% soybean lecithin and extender containing 15% egg yolk as control treatment. Concentration of glycerol and the procedure for freezing was based on previous study (Salmani, Towhidi et al. 2014). The diluted semen samples were maintained at room temperature (~25 ◦C) for 5 min and then equilibrated at 4 ◦C for 2.5 h. The cooled semen was loaded into 0.25-mL French straws at concentration of 1×109 sperm/ mL, according to the method described (Matsuoka, Imai et al. 2006), then sealed with polyvinyl alcohol powder. The straws were exposed to liquid nitrogen vapor, 4 cm above the liquid nitrogen for 12 min (Purdy 2006). Subsequently the straws were plunged into the liquid nitrogen for storage. After storage for 2 month, the frozen straws were thawed individually at 37 ˚C for 30 s in a water bath for microscopic evaluation. Evaluation of sperm after freezing-thawing Sperm motility was carried out according to Gil et al (Gil, Lundeheim et al. 2003). For this purpose, three straws from different freezing treatments were thawed at 37 8C for 10 sec and pooled in a test tube. Percentage of sperm motility was assessed using a computer-assisted sperm analysis system (CASA, Version12 IVOS, Hamilton-Thorne Biosciences, beverly, MA, USA). Semen samples were diluted 1:1 with tris buffer medium and incubated at 35 ˚C for 5 min. For evaluation, 10 µl drop of the sample was placed on a pre-warmed (37 ˚C) slide and covered with a 24 × 24-mm coverslip and a minimum of 200 sperm were counted under a phase contrast microscope at 37 ˚C and 100× magnification.

Result: The results of this study showed that most of the post-thawed sperm motion parameters (ALH, VSL, VCL,) were not significantly different between EYT

and L1% (P < 0.05). Although, LIN and STR was significantly in EYT In comparison with 1% (P < 0.05). In conclusion, the use of tris -based extender containing 1% Soybean lecithin for goat semen cryopreservation could, improve the motion parameters of goat sperm

Conclusion: One of the most important factors in the first stage that showing the successful freezing is acceptable Sperm mobility followed the cryopreservation process. The results of total motility, ALH, VSL, VCL and LIN showed that, were not significantly (P < 0.05) different between EY and L1%. Our experiment shows that, optimum level of soybean lecithin for cryopreservation of goat sperm is 1%. Salmani et al. reported that the 1.5% of soy lecithin in diluent for freezing goat semen is most appropriate level (Salmani, Towhidi et al. 2014). The main reason for the decline sperm motility after freeze-thaw is biochemical and ultrastructural damage during the freezing process that can occur at different times (Aires, Hinsch et al. 2003). Freeze-thaw process results in changes in sperm morphology, which cause damage cell membranes, mitochondria and sperm acrosome. Causes the only a few percentage of sperms has the integrated membrane and normal activity of mitochondria followed by freeze-thaw which Resulting less active sperm count remains after freezing-thawing (Huopalahti, Anton et al. 2007). Sperm membranes release phospholipids into the surrounding medium during cold shock (Darin-Bennett, Poulos et al. 1973). Presumably phospholipids are implicated by interaction with the spermatozoa membranes and replacing some lipids, thus decreasing their phase transition temperature (Graham and Foote 1987)

Keywords: fertility, Freezing, Goat. Egg yolk, Sperm, Soybean Lecithin

P334: Effect of different levels of nanoparticles of lecithin- based extender on freezability and fertility of goat spermatozo

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Background: Cryopreservation is a method that is widely used in assisted reproductive techniques (Said, Gaglani et al. 2010). Frozen bull sperm is widely a critical tool in the livestock industry, particularly regarding dissemination of genetic material and genetic resource bank is used to keep the valuable lines (Bucak, Tuncer et al. 2010). Sperm cryopreservation including freezing and thawing processes, which reduces sperm viability and changes in membrane structure, properties and causes the death of sperm (Watson 2000). Egg yolk and skim milk of animal origin are the most common additives used for freezing of sperm (Andersen, Aamdal et al. 1973). Recent studies showed concerns about these two cryoprotectants mainly due to their varied and diverse composition that makes their quality certification difficult (Moussa, Martinet et al. 2002, Gil, Rodriguez-Irazoqui et al. 2003, Amirat, Tainturier et al. 2004). However, the effective component of egg yolk protein is low-density lipoprotein, which protects sperm against cold shock (Salmani, Towhidi et al. 2014). Furthermore, an extender should contain an source of energy and lipoprotein or high-molecular weight substance to avoid cold shock (such as egg yolk, milk, or soybean lecithin), ionic or nonionic substances to maintain a suitable pH and osmotic pressure, and other additives (Aires, Hinsch et al. 2003).

Methods: For this study, six ejaculates from each goat were collected by artificial vagina twice a week during the breeding season from four mature Mahabadi bucks (3 and 4 yr of age) known to have good fertility. Volume varying between 0.75 and 2 mL, sperm concentration of 3 × 109 sperm/mL, motile sperm percentage higher than 70%, and less than 10% abnormal sperm were the criteria. To eliminate individual differences, semen samples from the four bucks were pooled. Each pooled sample was split into five equal aliquots and diluted with five extenders. The basic extender used in this study composed of 30.7 g tris (Merck, Darmstadt, Germany), 12.6 g fructose (Merck) and 16.4 g citric acid (Merck). The osmolarity and pH were set at 420 mOsm and 7.2, respectively. Five different extenders were prepared by the addition of 1%, 2%, 3% and 4% soybean lecithin and extender containing 15% egg yolk as control treatment. Concentration of glycerol and the procedure for freezing was based on previous study (Salmani, Towhidi et al. 2014). For the production of lecithin nanoparticles, four different levels of soybean lecithin were prepared using sonicated. The diluted semen samples were maintained at room temperature (~25 ◦C) for 5 min and then equilibrated at 4 ◦C for 2.5 h.

The cooled semen was loaded into 0.25-mL. French straws were at concentration of 1×109 sperm/ mL, according to the method described (Matsuoka, Imai et al. 2006), then sealed with polyvinyl alcohol powder. The straws were exposed to liquid nitrogen vapor, 4 cm above the liquid nitrogen for 12 min (Purdy 2006). Subsequently, the straws were plunged into the liquid nitrogen for storage. After storage for 2 months, the frozen straws were thawed individually at 37 ˚C for 30 s in a water bath for microscopic evaluation.

Result: The results of this study showed that addition of 2% nanoparticles of soy lecithin increased (P

Conclusion: Our experiment showed that, optimum level of nanoparticle of soybean lecithin for cryopreservation of goat sperm was 2%. Salmani et al. reported that the 1.5% of soy lecithin in diluent for freezing goat semen is the most appropriate level (Salmani, Towhidi et al. 2014). The main reason for the decline of sperm motility after freeze-thaw is biochemical and ultrastructural damage during the freezing process that can occur at different times (Aires, Hinsch et al. 2003). Freeze-thaw process results in changes in sperm morphology, which cause damage in cell membranes, mitochondria and sperm acrosome. Only a little percentage of sperms has the integrated membrane and normal activity of mitochondria is followed by freeze-thaw which results in less active sperm count after freezing-thawing (Huopalahti, Anton et al. 2007). Sperm membranes release phospholipids into the surrounding medium during cold shock (Darin-Bennett, Poulos et al. 1973). Presumably phospholipids are implicated by interaction with the spermatozoa membranes and replacing some lipids, thus decreasing their phase transition temperature (Graham and Foote 1987). Egg yolk extenders contain about 20 ml of egg yolk and contain 6–7% w/v of LDL (Huopalahti, Anton et al., 2007). studies demonstrate that defined media containing specified lipids can protect bull sperm during cooling and during freezing (Graham and Foote, 1987). Furthermore, the required phospholipids in the extender in the goat would be similar to the ram which has been reported 1% soybean lecithin by Sharafi et al. (Sharafi, Forouzanfar et al., 2009).

Keywords: Egg yolk, Fertility, Goat, Soybean lecithin, Sperm, Nanoparticles

P335: Effect of zirconium oxide nanoparticle on spermatogenesis and plasma level of testostrone in Wistar rat

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Background: Nanotechnology is the knowledge in which materials are created and manipulated in nano scale (1-100 nm). The nano scale products' definite properties are ultra-small size large surface area to mass ratio and high reactivity. Because of unique properties from zirconium oxide nano ceramic, it is used as the therapeutic implement, drug delivery and biocomposits in orthopedic and dental implant application. Spermatogenesis is a complex process of germ cell proliferation and differentiation which is particularly sensitive to chemicals.

Methods: In this study, we elaborated the effects of zirconium oxide nanoparticle on 32 Wistar rats in spermatogenesis. We randomly chose four groups in 8 rats. Control group was only treated by normal saline and three experimental groups were treated with 50 , 200 and 400 ppm of zirconium oxide solution. We obtained results by sectioning of testes that stained with Hematoxylin –Eosin stain and level of testostrone in plasma was evaluated with ELISA method.

Result: In experimental group 3 treated with 400 ppm zirconium oxide nanoparticle, irregular and disrupted germinal epithelium and shrinkage of sperm tubules were clearly observed. In this group, also spermatogony, spermatocyte, spermatid, sertoli and lydig cells decreased significantly ($P \leq 0.001$). In addition, level of testostrone decreased in all experimental groups compared with control but the difference was not statistically significant.

Conclusion: Zirconium oxide nanoparticles pass from blood- testes barrier easily. Therefore, they damage testes histologically and decrease germ cells in different stages of their development apparently. Also,

sertoli and leydig cells are decreased. Thus, testosterone levels decline in plasma. These changes raise infertility. Mechanism of ZrO2 NP affects spermatogenesis. have not been recognize, exactly. It appears that ROS and free radicals which damage testes and spermatogenesis.

Keywords: Nanopartilcle, Spermatogenesis, Testostrone, Wistar rat, Zirconium oxide

P336: The possibility and management sterateghies of pregnancy in women with polycystic ovary syndrome: a review article

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Background: Polycystic ovary syndrome (PCOS) is a common reproductive disorder associated with many characteristic features, including hyperandrogenaemia, insulin resistance and obesity which may have significant implications for pregnancy outcomes and long-term health of the woman. Polycystic ovary syndrome is the most common form of female infertility in the United States. In addition to poor conception rates, pregnancy loss rates are high (30–50%) during the first trimester.

Methods: This study is a review and a search in databases Pub Med, Cochran, Elsevier and Google Scholar was conducted from 2002 to 2017.

Result: The results of this study suggest that the higher risk of spontaneous abortion observed in women with PCOS is likely to be due to their high prevalence of obesity and the type of treatment they receive.

Conclusion: women with PCOS are at increased risk of pregnancy and neonatal complications. Metformin is an effective treatment for anovulation in women with polycystic ovary syndrome. It should be used as an adjuvant to general lifestyle improvements and not as a replacement for increased exercise and improved diet. Pre-pregnancy, and intrapartum care should be aimed at reducing these risks

Keywords: polycystic ovary, syndrome, pregnancy

P337: Effects of Lavendula officinalis aqueous extract on oogenesis Balb/C adult femal mouse.

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Background: Lavendula Officinalis has different treating effects including sedative and antiviral effects.However, there is no previous investigation on the effect of lavender on oogenesis,we aimed to assess the effect of lavendula extract on oogenesis of mature female mice(Balb/C).

Methods: After preparation of aqueous extract, experiments was on 50 mice with selected doses:6,12,18g/kg.bw.injections were done for 12 days. Results were compared with the control group and sham. For reliability of above results, experiences were repeated 3 times. Data was checked with SPSS 20 software and Duncan post test and ANOVA subject to (P

Result: According to the results,the histological Results showed changes that the injection of aqueous extract of lavendula decreased the large and small diameters of ovary in the first and second experiment groups p

Conclusion: it seems that lavendula can be used as a herbal contraceptive method regarding its effect.Although,higher dosage of lavendula may affect the oogenesis, it seems that it can treat different diseases,Therefore,performing further investigations on its effect by different route of administering and dosages can be recommended

Keywords: follicle , mice, oogenesis, Balb/C, lavender, ovary, reproductive system

ISERB 2017
The 3rd International Congress on Reproduction
Abstracts
ISERB Iranian Society of Embryology & Reproductive Biology

P338: Metabolomics and Male Infertility

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Background: It is estimated that 20% of couples are infertile. 50% of infertility is related to male factors. Despite the increase in understanding and treatment of male infertility, there are still a lot of unanswered questions. Application of high-throughput technology can open a new door for treatment of infertile men. State-of-the-art technology metabolomics are becoming more popular for categorization of specific biomarker and development of diagnosis test. Seminal plasma can be used as an excellent parameter for noninvasive detection and diagnostic test associated with the male infertility. We have used the seminal plasma for metabolomics studies as a screening tool to diagnose male infertility and for biomarker discovery.

Methods: We have used metabolomics fingerprinting and profiling for clinical diagnosis and potential biomarker finding.

Result: Using metabolomics fingerprinting, we were able to classify idiopathic infertile men and asthenozoospermia men in different groups compared to fertile men. Via metabolomics profiling, we showed that metabolome of the seminal plasma of the non-obstructive azoospermia (NOA) patients can be used for detection of spermatogenesis, as a noninvasive technique. Furthermore, we identified 36 metabolites, which showed deregulation in these patients that can be used as potential biomarkers for detection of spermatogenesis.

Conclusion: We have shown that metabolomics study of infertile men have come successfully out of discovery phase using the biological material seminal plasma. Now, we need to go to the test validation stage for further development of the technology.

Keywords: Metabolomics, Seminal plasma, Male infertility

P339: PGD to select HLA matched embryo for stem cell therapy for beta thalassemia

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Background: Preimplantation genetic diagnosis (PGD) combines IVF with genetic testing, and it allows families to assure their child's health regarding genetic disorders before pregnancy.

Methods: A family with a 6 year old child were affected with beta thalassemia major and referred for PGD to have a non-thalassemic HLA-matched child whose stem cells can be used for transplantation for their affected child. This study was approved by Kawsar human genetics research center ethic committee. Mutation detection in the affected child and linked STR haplotypes were carried out. Fertilization was carried out at the IVF clinic. On day 3 post fertilization, one blastomere was removed from each of the 8 embryos and used for PGD. Mutations and informative STR markers (16 for HLA and 4 for HBB) were investigated for each cell using multiplex nested PCR. Fragment analysis of the PCR products were run on capillary electrophoresis and analyzed

using GeneMapper® software. Unaffected HLA-matched embryos were selected and were implanted. Prenatal diagnosis (PND) was performed at 16th week of gestational age to verify PGD results.

Result: HBB:c.51delC mutation was diagnosed in patients and from 8 analyzed blastomeres 2 (25%) were unaffected HLA-matched. The others were either affected or not-matched. Both embryos were implanted and PND confirmed PGD result. A singleton baby was born on 2015.02.14.

Conclusion: PGD for a disease in combination with HLA typing was used to select HLA-matched embryo to have a potential donor for stem cell transplantation. İn case of successful IVF, using PND can minimize risks of misdiagnosis.

Keywords: HLA typig, IVF, PND, Thalassemia, PGD

P340: Effect of curcumin on sperm parameters invitro and invivo

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Background: Reactive oxygen species (ROS) generation, induced by the cryopreservation process, can be responsible for mammalian sperm damage. Curcumin is known as an effective antioxidant against oxidative stress. In this article we investigated the effects of curcumin treatment on sperm quality parameters in vitro and invivo

Methods: This article was a systematic review article.

Result: Some articles suggested that the effects of curcumin were dependent on its concentration. in male germ cells in vivo the protective effect was seen despite the low bioavailability of curcumin. In contrast, high, unattainable in the organism, concentration of curcumin had a cytotoxic effect on male reproductive cells in vitro. Based on some results, it is concluded that curcumin addition during freezing resulted in positive effects on sperm parameters such as motility, morphology and DNA integrity after thawing in adult rats.

Conclusion: The results suggest that curcumin may have a protective role against oxidative damage in male reproductive system.

Keywords: curcumin, invitro, invivo, sperm

P341: Herbal medicine with fertility enhancing and infertility activity in males

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Background: Male infertility is responsible for 30%-50% of all infertility cases throughout the world. Since male fertility largely depends on sperm morphology, quality, motility, and concentration, abnormalities in any of these factors may result in male infertility. Considering the potential effects of herbal medicine on male fertility, numerous studies have evaluated the fertility enhancing and infertility activity of particular herbs. The present research reviewed the findings of such studies.

Methods: A comprehensive search was performed on several databases including PubMed, MEDLINE, Cochrane Library, the Index Medicus for the Eastern Mediterranean Region (IMEMR), IranMedex, the Scientific Information Database (SID), and Google Scholar. In the primary search, studies were selected if they contained the desired key terms, i.e. herbal medicine, male fertility, and male infertility Daucus carota, Dendrophthoe falcate, either alone or in combination with other names of herbal medicine. Finally, 80 papers with the most relevant topics were evaluated.

Result: Based on the evaluated papers, Petroselinum crispum, Allium sativum, Matricaria chemmomilla, Crocus sativus L., Fumaria Parviflora, Origanum vulgarel L. spp. viride, and Daucus carota L. can enhance male fertility. In contrast, Curcurma Longa, Piper nigrum, Achillea millefolium L., Capparis deciduas, Centella Asiatica, Allamanda cathartica, Aegle marmelos, Tinospora cordifolia, Martynia annua, Anethum graveolens, Mistletoe, Barleriaprionitis , and Abrus precatorius have antifertility activity in men.

Conclusion: Herbal medicine with fertility enhancing properties can be used as supplements or alternatives to fertility drugs in men. On the other hand, plants with antifertility activity should be avoided by infertile men.

Keywords: Daucus carota, Dendrophthoe falcate, Infertility, Male fertility, Herbal medicine

P342: Quantitative changes of extravillous trophoblast cells in placenta of systemic lupus erythematosus patients

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Background: Pregnancy complications are common in women with Systemic Lupus Erythematosus (SLE) and probably are related to structural changes of placenta in these patients. In the present study, quantitative changes of extravillous trophoblast cells (EVTs) in the placental bed of SLE patients were investigated compared to healthy controls using stereological methods.

Methods: Twenty placentas from SLE patients and normal pregnancies (N=10) were enrolled in this case-control study approved by Ethnical Committee of Zahedan University of Medical Sciences. Selected samples were prepared for estimation of quantitative parameters including total volume of EVTs, diameter and volume of the nucleus and cytoplasm, and the nuclear-cytoplasmic (N/C) ratio of EVTs. Volumetric parameters and number of EVTs per unit volume of the placental bed was estimated respectively using Cavalieri's principle and Physical Disector stereological methods. The Mann Whitney-U test was employed to determine differences between the two groups. The significant level was set at p

Result: Placental volume in the SLE group increased compared to the control group, but this increase was not statistically significant (P>0.05). Placental weight in the patient group showed a significant decrease compared to controls (P

Conclusion: These changes can be associated with disturbances in trophoblastic invasion in SLE pregnancies and may affect the development and survival of the embryo.

Keywords: Extravillous trophoblast cells, Placenta, Placentation, Stereology, Systemic lupus erythematosus

P343: The effect of hydro-alcoholic tribulus terrestris .L extract on serum interleukin-6 and CRP levels in polycystic ovary syndrome as an inflammation state

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Background: Having low-grade chronic inflammation state symptoms such as elevated C-reactive protein and interleukin-6 play a crucial role in polycystic ovary syndrome (PCOS). Tribulus terrestris is an antioxidant and anti-inflammatory agent. In this study, we showed that Tribulus terrestris may have beneficial effects on the chronic low-grade inflammatory background associated with PCOS.

Methods: This study was conducted on 72 Wistar rats with the average weight of 200±20 gr. PCOS was induced by a single-stage subcutaneous injection of Estradiol Valerate (2 mg/kgBW). PCOS rats were divided into control and experimental groups received intraperitoneal injection Tribulus terrestris extract (100 and 250 mg/kg, 2 weeks). Anesthesia with chloroform was administered for animals. Ovary and serum were taken to measure the inflammatory marks using ELISA kits and histomorphometric studies. The results were tested using one way ANOVA and P

Result: The results indicated the significant reduction in inflammatory markers such as IL-6 and CRP in the treatment group with Tribulus terrestris extract compared with control.

Conclusion: The results showed that the anti-inflammatory and antioxidant effects of Hydro-alcoholic Tribulus terrestris extract are effective in symptoms of this syndrome and metabolic syndrome.

Keywords: CRP, IL-6, Tribulus terrestris, Polycystic ovary syndrome

P344: Protective effect of omega-3 on the quality of sperm and in vitro fertilization in diabetic adult male rats

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Background: Diabetes is one of the determinants of the fertility that can disrupt ovulation and formation of the fetus. The aim of the present study was to determine the ameliorative effects of the polyunsaturated fatty acid Omega-3 on sperm parameters, in vitro fertilization (IVF) and embryo development in diabetic rats.

Methods: 32 mature male rats were divided into four groups as the control, diabetic (50mg/kg sterptozotocin), intraperitonealy (IP), Diabetic+Omega-3(Low-Dose 300mg/kg b.w-1) and diabetic+Omega-3(High-Dose 600mg/kg b.w-1). Following 45 days, the rats were euthanized and epididymis tail was transferred to the human tubular fluid (HTF) medium containing 4 mg mL-1 bovine serum albumin (BSA). The sperm count, percentage of live, immature sperms and chromatin condensation were investigated. Moreover, it is necessary to mention that the in-vitro-fertilization potential of sperms was analyzed. The oocytes were obtained from immature rats after the injection of pregnant mare's serum (PMSG) and human chorionic gonadotropin (HCG) hormones. Human tubular fluid was used as the fertilization medium and zygotes transferred to fresh 1-cell rat embryos culture medium (mR1ECM) to reach the blastocyst stage.

Result: The omega-3 significantly (P

Conclusion: The results obtained from this study indicated that the oral administration of omega-3 increases the fertility in rats by influencing the sperm parameters.

Keywords: Fertility, Omega-3, Rat, Sperm, Diabetes

P345: the effect of zolpidem on spermatogenesis of adult NMRI mouse strain

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Background: Zolpidem (with the brand name of Ambien) is a non-benzodiazepine hypnotic which binds to the benzodiazepine binding site on the GABA-A receptors.The aim of this study was to assess

the effect of zolpidem on reproductive system of male adult NMRI mouse strain.

Methods: In this experimental study, thirty adult female NMRI mouse strains at a mean weight of 30±26 grams were divided into five groups. Zolpidem solution was prepared in distilled water at 5, 10, and 20 (mg/kg of body mass) doses, and 0.5 cc injections were done intraperitoneally every day for 14 days. The control group received no injection. The sham group received distilled water (as solvent of zolpidem) and treatment groups of 1, 2, and 3 received doses of 5, 10, and 20 mg/kg. The treatment groups were sacrificed one day after the last injection, ,and the texture of their right and left testis tissue was separated and examined after the process of alcohol supply, molding, shredding as well as Hematoxylin and eosin painting and the results were evaluated via the tukey-test, ANOVA by SPSS program.

Result: The result of section showed significant decrease in number of spermatocytes, spermatids, sertoli cells and also diameter of seminiferous on testes of the mice decreased. Also, these compounds showed a significant decrease in number of lydig cells in the experimental groups compared to the sham and control (p

Conclusion: In summary, results of the current study show that injection of zolpidem was significantly effective on spermatogenesis and testis tissue.

Keywords: NMRI mouse strain, Spermatogenesis, Testis, Zolpidem

P346: Taurine effect on human sperm parameters during microdroplet vitrification procedure

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Background: Despite advances in vitrification techniques for sperm cryo-preservation, cryo-damages of sperm caused by reactive oxygen species (ROS) generation continue to be major challenges in the implementation of this technique. The present study investigates the effects of taurine as an anti-oxidant agent on reactive oxygen species (ROS), hyaluronan-binding assay (HBA), acrosome reaction (AR) and heat shock proteinA2 (HSPA2) during sperm microdroplet vitrification technique.

Methods: Fifty normospermic semen samples were first processed using density gradient centrifugation (DGC) and then divided into equal fresh and vitrification groups. The vitrification groups were classified to 3 subgroups: the first group was the vitrified control group without taurine, and the other 2 subgroups were treated with 25mM and 50mM taurine, respectively. The control and treated groups were then vitrified using the microdroplet technique. Thereafter, classical sperm parameters, hyaluronan-binding assay (HBA), acrosome reaction (AR) and heat shock proteinA2 (HSPA2) were studied in fresh (unvitrified) group and compared statistically with those vitrified groups after warming.

Result: In all vitrified subgroups, sperm motility reduced (p

Conclusion: Taurine, especially with dosage of 50 mM, protects the sperm against ROS effects such as abnormal morphology, HBA dysfunction, HSPA2 degradation and increasing acrosome reaction during microdroplete vitrification procedure.

Keywords: Acrosome reaction, Heat shock protein A2, Hyaluronic binding assay, Taurine, Sperm vitrification

P347: Fennel induces spermotoxicity in mice

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Background: Foeniculum vulgare (fennel), a plant of umbelliferae family, is widely used as a medicinal plant with anti-inflammatory, hypoglycemic, antitumor, chemopreventive, cytoprotective, hepatoprotective, antioxidant and oestrogenic activities. The present study was conducted to explore the effects of fennel on mice sperm parameters.

Methods: 24 mature male mice were divided into four groups including control (with no treatment), low dose fennel (0.37 mg/kg.B.W-1), medium dose fennel (0.75 mg/kg.B.W-1) and high dose fennel (1.50 mg/kg.B.W-1). Sperm count, motility, viability and DNA damage were assessed after 35 days.

Result: Dose-dependent reductions of sperm concentration, motility and viability were observed in fennel-treated mice. Moreover, fennel significantly increased sperm DNA damage following medium and high dose level treatments.

Conclusion: Fennel adversely affects mice sperm characteristics in a dose-dependent manner.

Keywords: Fennel, Mice, Spermotoxicity, Dose-dependency

JRI Journal of Reproduction & Infertility
Official Journal of Avicenna Research Institute, ACECR
In Collaboration with: Iranian Society of Embryology & Reproductive Biology (ISERB)

ISERB 2017 conducted by
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