

Vaginal progesterone versus intramuscular in assisted reproduction (a comparative study)

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Abstract

Introduction: Progesterone is one of the important hormones in preparation of uterine endometrium for implantation of the fertilized ovum, and hyposecretion of this hormone can cause infertility and abnormalities in menstruation cycle of the women. With rising Assisted Reproduction comparative Treatment (ART), the number of patients with his abnormality and consequently their need to use external progesterone has increased. Since progesterone exists in different forms, the research is focused upon comparing the natural oil soluble progesterone with other types which are used as vaginal or rectal suppository .

Material & Method: A prospective study with randomized clinical trial was done on the patients who were being treated in ART cycles in which superovulation using GnRH-a+hMG was done during 1996 in Royan Institute.

Over this period of time, 185 cases of embryo transfusion was performed from which 88 patients (the first group) were randomly treated with progesterone suppository, and 97 (thesecond group) were treated with progesterone injection.

Results: Incidence of pregnancy in the first group was 22 (25%) and in the second group was 25 (25.8%), which statistically indicates no significant difference ($p=0.90$).

In these patients progesterone level of the blood serum was measured five and seven days after hCG injection. The average progesterone level in blood serum of the first group was 52.72 ng/ml and of the second group was 49.29 ng/ml, which statistically indicated no significant difference ($p=0.764$).

Conclusion: These findings suggest that the effect of different forms of this progesterone drug on promoting secretory phase of endometrium and thus preparing uterus for implantation of the embryo is the same. Therefore, the choice of type drug should be based on the patients condition and their own preference .

Key words : Vaginal Progesterone , Luteal Phase Defect , Injectional Progesterone

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