

Evaluating the prevalence of hypogonadotropic amenorrhea in infertile women and the rate of pregnancy following treatment

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Abstract

Introduction: Hypogonadotropic amenorrhea is one kind of primary amenorrhea which is caused by a decrease in GnRH secretion and results in infertility. As infertility is an important problem in 10-15% of couples, the present study was undertaken to determine the prevalence of the disease in infertile women and pregnancy rates in response to its treatment.

Materials and Methods: This cross-sectional, analytical study included 35 subjects suffering from hypothalamic amenorrhea, pulled from 2150 patients who referred to the infertility center of Montaserieh Hospital in Mashad during 2000-2002. The gathered data included: the patients' age, infertility duration, menstrual cycles, history of prior surgeries or illnesses, food regimens and drug history. A gynecologic exam, hormonal assays and sonographic evaluations were carried out. The patients underwent 3 cycles of ovulation induction procedures. A serum β -hCG measurement and a vaginal sonography were used to confirm pregnancy. The data were analyzed by SPSS 11. For the descriptive analysis, t-test and logistic regression were used and the significance level was considered 5% ($p < 0.05$).

Results: The patients aged 20-35 and their infertility period varied from 1.5 to 14 years. Three of them were excluded from the study because of loss to follow up. The prevalence rate was 1-6%. In all of the patients, the serum FSH and LH levels were $< 5 \text{ IU/ml}$. Serum prolactin levels were $21.7\% \pm 34.8 \text{ IU/ml}$ and TSH $1.2 \pm 0.6 \text{ IU/ml}$. 14 patients out of 32, responded to treatment and became pregnant after three cycles of treatment (43.7%).

Conclusion: The prevalence rate of infertility due to hypogonadotropic amenorrhea in this study was 0.016. Infertility due to hypogonadotropic amenorrhea is a disease that can respond to common ovulation induction treatment schedules quite well and despite the short period of treatment (3 cycles) in this study, 43.7% of the patients became pregnant. It is expected that by increasing the treatment period, better results will follow as it has in studies following 6 cycles of treatment with 83-90.1% success rates.

Key Words: Primary Amenorrhea, Hypogonadotropic Infertility, Gonadotropin, hMG, Prolactin, Intrauterine Insemination.

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