

Sexual and Hormonal Profiles of Infertile Subjects with Non-Obstructive Azoospermia

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Abstract

Introduction: Recent advances in the field of male infertility has led to a better understanding about the etiologies and genetic basis of azoospermia, as well as the availability of surgical sperm retrieval methods and intracytoplasmic sperm injection (ICSI) for its treatment. Nevertheless, the quality of life of these patients in general, and sexual function in particular, have not been explored adequately. The aim of this study was to evaluate the sexual function of infertile patients with non-obstructive azoospermia.

Materials and Methods: In this descriptive study, as much as 300 infertile men with non-obstructive azoospermia, who referred to Avicenna Infertility Clinic, in Tehran, Iran, were enrolled into the study during October 2004 to November 2006. Afterwards, 21 men were eliminated from the study because they met the exclusion criteria. At first, sexual functions of the patients were evaluated by a questionnaire, including questions on libido, penile erection, seminal ejaculation, inter intromission interval, orgasm and frequency of sexual intercourse. Physical examination was carried out to evaluate signs of androgenic deficiency. Semen samples were analyzed according to the current World Health Organization laboratory manual. Serum luteinizing hormone (LH), follicle stimulating hormone (FSH) and prolactin (PRL) concentrations were measured by immunoradiometric assays (IRMA) and serum testosterone measurement was done by radioimmunoassay (RIA). Conventional testicular biopsy by standard procedure was performed on both testes under local anesthesia for the candidates.

Results: On the whole, 90% of the cases had normal sexual desire. Erectile function with the ability to engage in normal intercourse was normal in 80%. Normal ejaculate volume was seen in 75% of the cases. Inter intromission interval was normal in 42.5%, but it was very premature or very late in 10%. Orgasm was normal in 80% and slightly or significantly decreased in 15% and 5% of the cases, respectively. Patients with small testicles comprised 54.8% of the cases, whilst 125 (44.8%), 139 (49.8%) and 15 (5.3%) of the patients were normogonadotropic, hypergonadotropic and hypogonadotropic, respectively. Mean values for FSH, LH, Testosterone and PRL were $24.5 \pm 25.4 \text{ mIU/ml}$, $9 \pm 7.2 \text{ mIU/ml}$, $6.1 \pm 4.4 \text{ ng/ml}$ and $284 \pm 224 \text{ ng/ml}$, respectively. Hypospermatogenesis with mature sperm was seen in 42 (15%) of the subjects upon testis biopsy. Histological examination showed testicular atrophy in 21.8%, maturation arrest in 22.2%, sertoli cell only syndrome in 40.8% and hyperplasia of Leydig cells in 11.8% of the cases.

Conclusion: Sexual dysfunction in infertile patients with non-obstructive azoospermia is as more prevalent as the general population. In azoospermia, sexual dysfunction is not taken into account due to the dominant picture of infertility in these patients. However, special attention to sexual dysfunction will improve quality of life and effectiveness of infertility treatments.

Key Words: Azoospermia, Ejaculation, Erectile dysfunction, Male infertility, Sexual dysfunction, Sexual health.

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