

Relation between histology of testicular biopsy and level of sex hormones in infertile men with non-obstructive azoospermia

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Abstract

Testicular retrieval of spermatozoa which is known as testicular extraction (TESE) with subsequent microinjection of spermatozoon into oocyte intracytoplasmic sperm injection (ICSI), is an effective treatment program for cases with azoospermia. The main objective of this prospective study was to evaluate the histology of testicular biopsy and its correlation with sex hormones of men with non-obstructive azoospermia. A total of 50 infertile men with above condition with mean age of 32.6 years were involved in this study. The level of FSH, LH and testosterone with the TESE results and the size of testicles were recorded in full. In the absence of sperm in TESE samples, the specimens were sent to pathology Laboratory for further evaluation. The results show that spermatozoa were present in TESE samples of 12 cases, while 15 and 7 cases show sertoli cell only syndrome and maturation arrest, respectively. A total of 46%(23 cases) were presented with small testicular size, and 16 of them had high level of FSH. Only 4 individuals with normal size of testis had high elevation of FSH, which was directly related, with the level of LH. However, the abnormal concentration of FSH+LH was indirectly correlated with abnormal levels of testosterone. In addition, an indirect correlation between abnormal FSH with type of testicular pathology was noticed. The results indicate that a successful TESE could be done regardless of the hormonal condition of FSH+LH, Therefore, it is important to note that TESE is unnecessary in cases with atrophied testis with extremely high concentration of FSH. This certainly reduces not only the surgical cost, but also may reduce the psycho-stress upon the infertile couples.

Keywords: Non-obstructive azoospermia, Male infertility, Testicular pathology and Sex hormones.

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