chromosomal abnormalities in testicular and epididymal spermatozoa

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OBJECTIVE: To determine whether chromosome abnormalities in testicular and epididymal spermatozoa.

Method & Material: a systematic review

RESULTS: Some studies showed that infertile men with severe azoospermia have higher incidences of genetic defects than fertile men. According to the findings of articles and considering the fact that gonosomal disomy was the most recurrent abnormality in both obstructive and non-obstructive azoospermic patients, while autosomal disomy was the most frequent in ejaculated sperm.

similar studies are recommended about the NOA patients displayed significantly higher rates of diploidy and disomy for chromosomes 13 , 21 and sex chromosomes than the control group. Additionally some data identified that micro deletions in the azoospermia factor (AZF) region of Y chromosome was higher in infertile men with severe azoospermia.

One study demonstrated the overall aneuploidy rate of 11.4% in men with non-obstructive azoospermia was significantly higher than the 1.8% detected in epididymal sperm from men with obstructive azoospermia and also the 1.5% found in ejaculated sperm.

The other study established that Complex chromosomal abnormality was significantly more frequent in the MESA group than in the EJAC group.

CONCLUSIONS: Our data proposes that infertile men with non-obstructive azoospermia have higher incidences of genetic defects than fertile men. It is essential to know whether there is a genetic reason of male infertility before patients are indicated to intracytoplasmic sperm injection (ICSI) or testicular sperm extraction (TESE)/ICSI treatment.

Key words: Aneuploidy, Azoospermia .TESE,PESA,MESA

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