

Conclusions: The encapsulation of spermatogenic cells with zona pellucidae in co-culture system enhanced cell survival and proliferation rates probably by protecting from loss of germ cells and various damage during *in vitro* culture. The addition of growth factor in appropriate concentrations improved cell growth as well.

P-19 **The Genetic Analysis of LH-subunit Gene in Non-obstructive Male Infertile: The Genetic Analysis in Male Infertility**

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Objectives: To investigate the genetic background of non-obstructive male infertility.

Materials and Methods: 95 non-obstructive male infertile patients; 75 azoospermia, 18 oligo-asthenoteratozoospermia (OAT) and 2 oligozoospermia patients were investigated for genetic background including karyotype, Y chromosomal deletion and three polymorphism sites of LH-subunit gene (Trp8Arg, Ile15Thr, and Gly102Ser).

Results: An abnormal karyotype was found in eleven of the azoospermia patients (11/75) and one of the OAT patients (1/18). Twelve percents of non-obstructive male infertility patients (11/95) have one or more deletions at 13 loci on Y chromosome. Gly102Ser variant of LH-subunit gene was not detected in either infertile or fertile men (0%, n=294). The frequency of double Trp8Arg and Ile15Thr heterozygotes was similar between fertile (14.5%, n=200) and infertile (11.8%, n=76) group with the exception of one homozygous mutation (Arg8 and Thr15) from azoospermia.

Conclusions: Three variants of LH beta gene (Trp8Arg, Ile15Thr, and Gly102Ser) may not be associated with male infertility. The biological effect of Arg8 and Thr15 mutations related to male infertility should be further investigated.