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Poster Presentations

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Investigation of association between rs5030772 polymorphism of *FasL* gene with premature ovarian failure

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Background: Premature ovarian failure (POF), the pathogenesis might be indiscernible for a long time, is related with problems in fertility. In 74-90% of cases, POF is idiopathic but it could be familial (4-33%) or sporadic. The main recognized causes of POF are as follows: Autoimmune ovarian damage, genetic aberrations and environmental factors (i.e. viruses, toxins, etc). Genetic mechanisms of POF are decreased gene dosage as well as non-specific chromosome effect that disrupts meiosis, reducing the pool of primordial follicles along with increasing atresia because of apoptosis or impaired maturation of follicle. Fas ligand (FasL) is a mediator of apoptosis that plays a role in the differentiation of cells and the development of embryo. Polymorphism of FasL gene could be involved in the disease process.

Objective: Considering the importance of apoptosis in homeostasis of normal tissues as well as in disease conditions, we evaluated the impact of a common FasL polymorphism and its relationship with POF.

Materials and Methods: In this case-control study, the polymorphisms of FASLIVS2nt_124A/G were analyzed in Iranian women suffering from POF and healthy controls. Isolation of DNA was done by salting out method and genotype analysis was performed for all the subjects using PCR-RFLPrestriction fragment length-polymerase chain reaction) method.

Results: Statistical analysis revealed no differences in codominant or other models of genotype nor allele frequencies between cases and controls ($p > 0.05$).

Conclusion: It appears that FasL INV2nt_124A/G rs5030722 SNPs (Single nucleotide polymorphisms) have no difference between POF patients and healthy subjects.

Key words: *FASL, Polymorphism, POF.*