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Poster Presentations

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Polymorphism of *ESRI* (XbaIG/A) as a genetic agent in women with poor response to controlled ovarian hyperstimulation

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Background: Physiological function of ovarian regulates by reproductive hormones including estrogen. Estrogen is a steroidal hormone and its actions in ovary mostly occur through its binding to intracellular receptor α and β. *ESR1* (α) gene include many polymorphic sites (SNPs) located along various regions of it that control expression and function of this receptor.

Objective: This paper aimed to investigate the association of XbaI A/G (rs9340799) with poor ovarian response in Iranian women undergoing IVF treatment referred to Yazd Reproductive Sciencse Institute.

Materials and Methods: To do so, a group of 40 women with normal response ovarian and a group of 209 women with poor response ovarian in IVF cycles were included. Genomic DNA extraction was performed with Blood DNA Extraction Kit (Favorgen Co.). Using PCR-FRLP technique and XbaI restriction enzyme SNP in -29 G/A site of *ESR1* gene were genotyped.

Results: Our finding show polymorphisms in *ESR1* (rs9340799) was significantly different between women with normal and poor response ovary considering AG+GG and GG+AA ($p = 0.005$) genotype but was not statisticaly signification regarding to AA+AG ($p \leq 0.05$).

Conclusion: The study of SNPs of the ESR1 gene is an interesting field of research that could provide us with new facts considering the way each woman responds to standard stimulation protocol in IVF cycle.

Key words: *Alpha-estrogen receptor, Polymorphism -29 G>A (rs9340799), Poor ovarian resesponse, RFLP-PCR.*