Investigation on polymorphism of HLA-G gene +14bp/-14bp in Iranian women with recurrent spontaneous abortions

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ABSTRACT

Background & Aim: HLA-G is a non-classical human leukocyte antigen (HLA) class I molecules, unlike classical HLA has low polymorphism. It is thought that this molecule has a mediating role in the relation between mother and fetus. The aim of this study was to investigate, the association between 14bp insertion/deletion polymorphism of 8th exon of the HLA-G gene and RSAs.

Materials & Methods: Genomic DNA was extracted from peripheral blood of 50 women with RSA and 50 fertile women. Amplification of 8th exon of this gene was performed by PCR method. Analysis of genotype status was performed by poly acrylamide gel electrophoresis.

Results: It was observed that 60% of patients with RSA were homozygous for +14bp/-14bp, while in the control group only 34% of samples showed homozygous genotype. This difference was significant (P= %34).

Conclusion: Statistical analysis showed that there are significant differences between patient and control groups in terms of heterozygous and homozygous individuals. Further studies must be performed by using a larger sample size and in different racial and ethnic groups in order to investigate the relationship of this polymorphism as a predisposing factor for recurrent spontaneous abortion.

Keywords: +14 bp/-14 bp polymorphism, HLA-G gene, Recurrent Spontaneous Abortion


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