Effects of IL-1 receptor antagonist intron 2 gene polymorphisms on recurrent pregnancy loss in Iranian population.

Seyed Ali Rahmani1*, Alireza Isazadeh2, Yasamin Sayed Hajizadeh3, Elina Emami3, Saba Hajazimian2, Marina Nottagh4, Zahra Amini5, Nazila Fathi Maroufi6

1Department of Molecular Biology, Ahar Branch, Islamic Azad University, Ahar, Iran
2Department of Genetic, Tabriz Branch, Islamic Azad University, Tabriz, Iran
3Department of Microbiology, Urmia Branch, Islamic Azad University, Urmia, Iran
4Department of Genetic, Zanjan Branch, Islamic Azad University, Zanjan, Iran
5Department of Marine Biology, Khorramshahr Marine Science and Technology University, Khorramshahr, Iran
6Department of Clinical Biochemistry and Laboratory Medicine, Tabriz University of medical sciences, Tabriz, Iran

Abstract

Introduction: Recurrent Pregnancy Loss (RPL) is a heterogenous disease which consisting of three or more successive abortions before 20 weeks of pregnancy. The cytokines that secreted by Th1 cells (IL-1, TNFα and IFNγ) were described as etiologic factors in RPL. The aim of this study was investigate to association between recurrent pregnancy loss and IL-1 receptor antagonist gene (IL-1RN) intron 2 polymorphism (86-bp VNTR) in Iranian Azeri and Persian women.

Materials and methods: Genotype and allele distribution were studied in 280 Persian women (140 case and 140 control) and 200 Azeri women (100 case and 100 control). Case group were included women with least three RPL and control group were included healthy women with at least two successful deliveries. Genomic DNA was extracted from whole blood and polymorphism analysis was performed by Polymerase Chain Reaction (PCR) method.

Results: No significant association was observed between IL-1RN 86-bp VNTR polymorphism in intron 2 and RPL among Iranian Persian and Azeri women.

Conclusion: IL-1RN VNTR polymorphism may not be a genetic factor for RPL. However investigation of IL-1RN polymorphism was recommended in other populations and patients with recurrent pregnancy loss.

Keywords: IL-1RN, Polymorphism, Recurrent pregnancy loss.

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