Lack of Association Between rs17568 Polymorphism in OX40 Gene and Myocardial Infarction, Southern of Iran.

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Abstract

Tumor necrosis factor (TNF) is one of the inflammatory cytokines which has an important role in inflammation and migration of other inflammatory cells to the atherosclerotic plaques. OX40 is a member of the TNF super family receptor protein. OX40 and OX40 ligand are co-stimulators for T-cells and can increase inflammatory response in atherosclerotic plaques. The aim of this study was to determine the association of rs17568 polymorphism in OX40 gene with premature myocardial infarction. This case control study was done on 100 patients with premature acute myocardial infarction (AMI) and a similar number of sex, age and some other cardiovascular risk factor matched healthy people. The OX40 rs17568 polymorphism was genotyped, using PCR-RFLP method. A-allele frequency of rs17568 SNP was lower non-significantly in Premature AMI, compared to healthy subjects (49% vs. 51%). The analysis of rs17568 (A/G) polymorphism showed an odds ratio of 1.127 (95% CI: 0.635-1.999; P= 0.686) for the GG genotype and 5.761 (95% CI: 1.200-27.655; P= 0.029) for the AG genotype, compared to the AA genotype. The results of this study indicate that the rs17568 SNP of OX40 gene is not associated with premature AMI in the evaluated population.