Non-association between rs17568 OX40 Gene Polymorphism and Type-2 Diabetes Mellitus, West-south of Iran

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Abstract Background: Different environmental and genetic factors are etiologic factor for type 2 diabetes mellitus (T2DM). The identification of genes with potential for developing T2DM is necessary to prevent the onset of this disease. The aim of this study was to determine the association between OX40 gene polymorphisms (rs17568) and T2DM, west-south of Iran. Methods: This case-control study was done on 200 patients referred to Diabetes Clinics and 200 healthy subjects in Jah¬rom City. OX40 gene rs17568 polymorphism were then geno¬typed using the polymerase chain reaction-restriction fragment length polymorphism (PCR-RFLP) method and biochemical parameters were measured using bio-chemical methods. Finally, the results of the study were analyzed by SPSS-19 software. Results: There were not seen significant differences between the mean of age and BMI in the case and the control groups. The analysis of rs17568 (A/G) polymorphism revealed an odds ratio 1.545 (95%CI: 0.806-2.960; P = 0.19) for the GG genotype and 1.339 (95%CI: 0.881-2.034; P = 0.172) for the AG genotype, versus the AA genotype. A-allele frequency of rs17568 SNP was higher non-significantly in patients with T2DM, than healthy subjects (70.3 % vs. 64.8 %) (95%CI: 0.955-1.730; P = 0.097). Conclusion: The results of this study indicate that OX40 gene rs17568 SNP has not association with T2DM in the evaluated population.

Key words : rs17568 Polymorphism OX40 Gene Type-2 diabetes Mellitus