Title: PTPN22 gene polymorphism C1858T is not associated with type 1 diabetes in Azerbaijan, northwest Iran


Abstract: Introduction: Type 1 Diabetes (T1D) is a complex trait caused by T-cell mediated autoimmune destruction of islet beta cells in the pancreas, resulting from the interaction between genetic and environmental factors. The PTPN22 gene encodes an intracellular lymphoid-specific phosphatase (Lyp) that has been shown to play a negative regulatory role in T-cell activation. Several studies have shown that a functional mission PTPN22 C1858T (R620W) polymorphism confer susceptibility to several autoimmune diseases including T1D. In the present study, for the first time in Iran, we explored whether the PTPN22 C1858T (R620W) gene polymorphism confer susceptibility to T1D in the Azeri population from the Northwest region.

Method: One hundred and fifty-six T1D patients and 197 healthy and ethnic matched controls were included in this study. Restricted fragment length polymorphism (RFLP) method was used to type PTPN22 C1858T polymorphism.

Results: There was no significant difference in the distribution of the genotypes and allele frequencies of PTPN22 C1858T polymorphism between T1D patients and controls (P=0.840, and 0.842; respectively).

Conclusions: In summary, the PTPN22 C1858T (R620W) is not relevant in susceptibility to T1D in the Azeri population of Northwest Iran.

Presentation: Poster