

P102. EFFECT OF CHRONIC ARSENIC EXPOSURE AND GLUT1 POLYMORPHISM IN THE DEVELOPMENT OF DIABETES MELLITUS

Dilek KAYA-AKYÜZLÜ¹, Fezile ÖZDEMİR², Zeliha KAYAALTI¹

¹Ankara University, Institute of Forensic Sciences, Ankara, TÜRKİYE

²TURKISH REPUBLIC OF NORTHERN CYPRUS

Human can exposed to arsenic via drinking water, soil resources, air and nowadays mainly by occupationally. Arsenic is classified as a Group I carcinogen by International Agency for Research on Cancer (IARC). Chronic exposure to arsenic can cause to cardiovascular diseases, diabetes mellitus (DM), dysfunction in neural system or many diseases. In the world and also Türkiye, the number of patients having DM has been increasing every days and there have been many researches on why, how and what can lead to the development of DM. As a consequence of these studies, it is suggested that some of the single nucleotide polymorphism (SNP) which is located in Glucose transporter 1 (Glut1) gene region can be associated with DM. In this review, the SNPs which are related with chronic arsenic exposure and DM, and which SNPs can be researched in Turkish population will be mentioned in the light of previous studies.