THE ASSOCIATION BETWEEN THE HLA-DR GENOTYPE AND THE AGE OF ONSET IN TYPE 1 DIABETES

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Introduction: Type 1 diabetes mellitus (T1DM) is a metabolic disease with multifactorial etiology characterized by β -cell autoimmune processes. The strongest genetic determinants were proved to be class II genes of the major histocompatibility complex, mainly HLA-DR and -DQ genes.

Objectives: The aim of the study was to investigate the HLA-DR genotype in association with the chronological age at the disease onset. Additionally, the genotype frequencies in relation to the mode of onset and glucose blood concentration at the time of the presentation were analyzed.

Material and methods: We typed 62 children with T1DM for alleles of HLA-DR locus and data about the onset of the disease were collected.

Results: The statistical analysis of clinical data in correlation with the DR genotype showed an association between the DR genotype and the age at onset ($p=0.031$), but failed to show a correlation between the DR genotype and the mode of onset, or blood glucose at onset ($p=0.78$ and 0.57 , respectively).

In conclusion, in our group the DR genotype had effects only on the age of onset and not on the mode of onset or blood glucose at onset.