

# THE ASSOCIATION OF HLA CLASS I AND CLASS II POLYMORPHISMS WITH MALIGNANT HEMOPATHIES IN SERBIAN PATIENTS

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Disease association with HLA was first reported in blood cancer. Analyses of polymorphisms have a practical application in HSCT and examining associations with diseases. The aim of this study was to establish the HLA class I and class II polymorphism in patients with malignant hemopathies, the potential difference in the frequency of the examined alleles in patients with myeloid and lymphoblastic neoplasms. The retrospective analysis included 410 patients. HLA typing was done by PCR – SSP (Olerup). A total of 289 alleles were proven: 150 in the myeloid group, and 139 in the lymphoblastic group. The most frequently represented alleles (above 10%) in the myeloid group were: A\*02:01, A\*01:01, A\*03:01, A\*24:02, B\*51:01, C\*07:01, C\*04:01, C\*12:03, C\*02:02, DRB1\*11:04, DRB1\*16:01, DQB1\*03:01, DQB1\*05:02, DQB1\*05:01 and the lymphoblastic group were: A\*02:01, A\*01:01, A\*24:02, B\*51:01, C\*07:01, C\*04:01, C\*12:03, DRB1\*16:01, DQB1\*03:01, DQB1\*05:02, DQB1\*05:01. The A\*03:01 allele was more frequent in the group of myeloid neoplasms compared to healthy group from the Serbian BMDR (12.69% vs 7.79%), as well as C\*02:02 (11.32% vs 6.25%) and DRB1\*11:04 (12.10% vs 5.36%) but the difference did not reach statistical significance. Further studies on a larger number of patients would eventually show the influence of HLA polymorphism on the diagnosis and pathogenesis of malignant hemopathies, as well as the location of susceptibility genes.