

Association between HLA class I antigens and survival length in patients with multiple myeloma

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Abstract

Aim: The aim of the investigation was to determine the association between human leukocyte antigens (HLA) class I phenotype and the length of survival in patients with multiple myeloma.

Methods: HLA class I (loci A and B) antigens were tested using the standard lymphocytotoxicity test with reagents produced by "Gisans", St. Petersburg. The HLA phenotype was identified in 120 patients with multiple myeloma. There were 53 (41.2%) males and 67 (55.8%) females among them. The median age at diagnosis was 60 years. The diagnosis of multiple myeloma was established according to standard criteria. Patients received the following chemotherapy programs: MP, M2, VAD, and PAD. Survival was calculated from the date of diagnosis using curves Kaplan-Meier ("Statistica 6.0"). Survival lengths of patient groups were compared using the log-rank method ("Biostat").

Results: A statistically significant difference was obtained in the comparison of survival curves of patients with HLA-B5 and without ($p < 0.05$). Patients who had HLA-B5 in their HLA phenotype, had a higher risk of death than others, with a median survival length of 29 months compared to 79 months.

Conclusion: Poor prognosis and low survival length in patients with multiple myeloma are associated with HLA-B5.

Keywords: multiple myeloma, HLA, survival