

CYTOMEGALOVIRUS ANTIBODY POSITIVITY AND HUMAN LEUKOCYTE ANTIGEN RELATIONSHIP IN PATIENTS IN THE CADAVER WAITING LIST

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Objectives: It has been proposed that Human Leukocyte Antigen (HLA) alleles, which are one of the critical components of viral antigen presentation. Human cytomegalovirus (HCMV) represents a prototypical β -herpes virus that causes infection in the host with periodical latent phases and reactivation of infection. CMV, which is one of the common opportunistic viruses, rarely causes life-threatening infections or graft losses. In this study, we aimed to investigate the relationship between CMV IgG and IgM positivity and HLA in patients.

Methods: CMV antibody positivity was retrospectively evaluated in end-stage renal disease patients (n:100), who were actively registered in the cadaver waiting list at Istanbul Faculty of Medicine, General Surgery Transplantation Unit. The HLA-A,-B,-C,-DRB1,-DQB1 loci were studied using the Luminex method.

Results: The most common alleles observed in the patients, who were in the cadaver waiting list, were as follows: HLA-A*02:01 (18.0%), HLA-A*24:02 (16.0%), HLA-B*35:03 (6.5%), HLA-B*18:01 (6.5%), HLA-Cw*04:01 (21.5%), HLA-Cw*07:01 (10.0%), HLA-DRB1*11:01 (11.5%), HLA-DRB1*11:04 (9.0%), HLA-DQB1*03:01 (27.5%), HLA-DQB1*03:02 (12.0%). HLA-DQB1*02:01 was detected with a higher rate in the patients who had CMV IgM positivity compared to the patients who had negative CMV IgM ($p=0.048$). HLA-B*35:03 was found with a higher rate in the patients who had CMV IgG positivity compared to the ones who had negative CMV IgG, though the difference was not statistically significant ($p=0.070$).

Conclusion: In our study, it was determined that people on the cadaver waiting list who carry the HLA-DQB1*02:01 allele, one of the HLA-Class II alleles, were associated with CMV IgM positivity.