

ABSTRACT

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Title: Occurrence of HLA-B27 antigen in patients examined for suspected rheumatological diseases

Bachelor's Thesis

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Field of study: Medical Laboratory Technician

Background: The aim of the study of HLA B27 antigen in patients investigated for suspected rheumatological disease in 2015.

Methods: Patient samples examined for the presence of antigen HLA-B27 in the HLA laboratory of the Transfusion Department, University Hospital Hradec Kralove are processed using the serological method. First is used the isolation of peripheral blood lymphocytes using a density gradient, thereafter lymphotoxical test with peripheral lymphocytes.

Results: In 2015 were examined 1,329 patients. 207 persons had the HLA-B27, 1122 persons did not. Of the total number of examined patients were examined 754 women and 575 men. Positive was found 108 women and 99 men. The highest incidence of HLA-B27 was observed in the group of 20-29 years old, another slight increase was in the group of 10-19 years old and 40-49 years old. The examined persons had mainly a group diagnosis of disease of the musculoskeletal system with the most frequently diagnosed dorsalgia (M54).

Conclusions: The association between HLA-B27 antigen and the diseases has been proven long ago but the exact mechanism which makes the link between the HLA system and diseases has not been revealed yet. The best known association is the association of the molecule HLA-B27 with many non-specific inflammatory diseases e.g. ankylosing spondylitis.

Keywords: HLA system, HLA-B27 antigen, HLA antigens investigation, HLA laboratory, department of transfusion, antibody, rheumatological disease, immunity