

In post-hoc analysis, similar results were observed among cases and controls. In addition, there were no differences between the groups during the pollen season between 15th April and 15th August.

In correlation analysis, there were no significant findings between fall of FEV1 and specific IgE level to birch, timothy, mugwort, cat, dog, or house dust mite.

CONCLUSION

Aeroallergen sensitisation did not have an effect on EVH results. ■

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The Nature of the Ratio of B1 to B2 Lymphocytes in Patients with Common Variable Immunodeficiency

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BACKGROUND

Antibody production inhibition is a leading sign of common variable immunodeficiency (CVID), but the causes of this defect are not fully

disclosed.^{1,2} It is known that the basis of the violation of antibody synthesis results in a change in the functions of B lymphocytes. At the same time, the data on the quantitative and functional features of B lymphocyte subpopulations in CVID are very contradictory, which determines the interest in this area of research.^{3,4}

AIM

To identify a characteristic of the B1 and B2 subpopulations of lymphocytes in patients with CVID.

MATERIALS AND METHODS

Ten patients aged 28–62 years (male: 4; female: 6) with a diagnosis of CVID were followed up. All the patients received intravenous Ig therapy (0.4 g/kg of body weight, monthly). The data of the examination before the next infusion in the conditions of clinical remission were analysed. The control group consisted of 10 blood donors. The phenotypic parameters of B lymphocytes were evaluated by flow cytometry using appropriate sets of monoclonal antibodies.

RESULTS

It is known that B lymphocytes of the peripheral blood are mainly represented by the

B2 subpopulation, and the increase in the content of B1 lymphocytes that are ontogenetically, phenotypically, and functionally different from them is a reflection of intra-immune dysregulation.⁵ The results of the subpopulation characteristics of B cells of the control group showed that the proportion of B2 lymphocytes was 97.5% (95–99) with a ratio of B1:B2 of 1:40. In the cohort of patients with CVID, the B2 phenotype averaged 85.7% (77–92) of all circulating B lymphocytes. In this case, the ratio of B1:B2 in 100% of cases was lower than the data of the comparison group, but the spread of values varied very significantly, from 1:3 to 1:31. Comparison of the results of phenotyping of B cells with the data of the serum IgG revealed that the values of the ratio B1:B2 closest to the control (1:26; 1:22–1:31], observed in patients with IgG pre-transfusion level of 8.1 g/L (7.9–8.3), whereas in the group of patients with CVID, where the ratio of B1:B2 in relation to control reduced significantly (1:7; 1:3–1:9), pre-transfusion values for IgG ranged from 6.8 (6.5–7.1) g/L.

CONCLUSION

Thus, a decrease in the proportion of B2 lymphocytes in the total pool of circulating B cells was common for all the presented observations of patients with CVID, and the variability in the degree of decrease correlated with the pre-transfusion level of IgG content. ■

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