

European Respiratory Society Annual Congress 2013

Abstract Number: 1495

Publication Number: P3795

Abstract Group: 1.5. Diffuse Parenchymal Lung Disease

Keyword 1: Cell biology **Keyword 2:** Interstitial lung disease (connective tissue disease) **Keyword 3:** Allergy

Title: Subpopulation analysis of peripheral blood lymphocytes in different variants of exogenic allergic alveolitis (EAA)

Lsrisa 11875 Lepekha lep3@yandex.ru MD , Natalia 11876 Makaryants roman4000@yandex.ru MD and Evgeny 11877 Shmelev eishmelev@mail.ru MD . ¹ Patomorphology, Central TB ResearchInstitute, Moscow, Russian Federation ; ² Pulmonology, Central TB ResearchInstitute, Moscow, Russian Federation and ³ Pulmonology, Central TB ResearchInstitute, Moscow, Russian Federation .

Body: Aim: To perform a comparative subpopulation analysis of venous blood lymphocytes in acute, subacute and chronic course of EAA. Materials and methods: We studied 113 patients with verified diagnosis of EAA. Based on clinical, X-ray and bronchology (transbronchial biopsy and bronchoalveolar lavage) studies, we established 3 groups: acute, subacute and chronic course of the disease. At admission to hospital, all the patients were studied using flow-cytometry to determine counts of T- and B-lymphocytes, NK, T-helpers (CD4), T-suppressors (CD8), and the immunoregulatory index (Th/Ts) in blood. The analysis was performed using the immunology kit SimultestIMK-Lymphocyte ("BectonDiskinson", USA), the flow-cytometer FACSCalibur with SimulSET software. Blood samples from 10 healthy donors were used as controls. Results: In all the patients with EAA T-lymphocyte counts tended to decrease, while B-lymphocyte counts – to increase, which was reliably expressed in subacute course of the disease (70.27 + 1.98% instead of 75.14 + 1.07% and 17.12 + 1.72% instead of 12.14 + 1.65% respectively). The Th/Ts value was above the norm (1.75 + 0.31) in acute (2.35 + 0.27) and decreased in chronic (1.46 + 0.20) course of EAA. The counts of NK cells were elevated in acute and subacute course of the disease (11.40 + 1.33% and 11.79 + 1.07% instead of 8.29 + 1.32%), normal in chronic cases (9.79 + 1.39%). Conclusion: The results of the subpopulation analysis of venous blood lymphocytes demonstrate variants of EAA course and may be used as independent parameter to select a strategy and tactics of treatment.