

## **INTERLEUKIN-33 (IL-33) AS A NEW MARKER OF PULMONARY SARCOIDOSIS.**

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The mechanisms of sarcoidosis (BBS, Besniera-Boeck-Schaumann disease) remains incompletely understood, although recent observations suggested an important contribution of IL-33. Recently many studies revealed that IL-33 is associated with suppressing Th1 responses, which play major role in patients with BBS. So far, there is no data about concentration of IL-33 in patients with BBS. We wanted to relate concentration of IL-33 to interleukin-18 (IL-18) - a well-known marker of BBS activity.

The aim of the study was to evaluate the concentration (Elisa) of IL-33 and IL-18 in BALF (BronchoAlveolar Lavage Fluid) in BBS patients. We examined 24 BBS patients (stage II). The age matched control group consisted of 24 healthy subjects. The levels of IL-33 and IL-18 in BALF were higher in BBS patients than in control group [ IL-33: 4.8 (0.1-12.5) vs 3.38 (0.6-56.9) pg/ml,  $p = 0.024$ ; IL-18: 33.19 (5.7-122) vs 10.83 (1.9 - 45.8) pg/ml,  $p = 0.002$  ]. In BBS group we found correlations between the levels of IL-33 and IL-18 ( $R=0.606$ ,  $p=0.002$ ) as well as IL-33 and DLCO ( $R=-0.5$ ,  $p=0.035$ ). Receiver-operating characteristic (ROC) curves were applied to find the cut-off the serum levels of IL-33 and IL-18 in BALF (BBS vs Healthy: IL-33 2.699 pg/ml, IL-18 16.436 pg/ml). We conclude that IL-33 may present as an important factor of pulmonary BBS activity.