European Respiratory Society
Annual Congress 2012

Abstract Number: 4770

Publication Number: P805

Abstract Group: 3.2. Airway Cell Biology and Immunopathology

Keyword 1: Asthma - mechanism **Keyword 2:** Immunology **Keyword 3:** Morphology

Title: Estimation of activity apoptosis genes based on expression of Bcl2, Bax, caspase-3 activity in bronchial epithelium in asthma

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Body: Aim: The aim is to reveal the disorders of apoptosis in bronchial epithelium in bronchial asthma (BA) based on the estimation of expression of Bcl2, Bax, caspase-3. Methods: In 21 patients a fibreoptic bronchoscopy was performed (patients have signed the ICF). Expression of Bcl2, Bax, CPP32 (caspase-3 activity) in bronchial epithelium was performed by immunohistochemical analysis of bronchus biopsies taken in fibrobronchoscopy using DAKO kits. Results: In allergic BA elevation of Bcl2 expression and decrease of Bax expression compared to nonallergic BA and oral glucocorticoids taking patients were found. Activity of Bax expression was significant decreased in allergic BA compared to that in other groups. The same data were revealed on analysis of Bcl-2/Bax index. Expression level of caspase-3 was high in both groups. Conclusion: Features of apoptosis in bronchial epithelium in different variants of BA could indicate to different pathogenetic mechanisms of apoptosis in allergic inflammation persistence.