European Respiratory Society
Annual Congress 2013

Abstract Number: 84

Publication Number: P257

Abstract Group: 3.3. Mechanisms of Lung Injury and Repair

Keyword 1: COPD - mechanism **Keyword 2:** Cell biology **Keyword 3:** No keyword

Title: The reactive carbonyl derivatives of proteins in neutrophils of patients with varying severity of COPD

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Body: Neutrophils play an appreciable role in reactions of local immunity at COPD. The aim of our study was to examine the concentration of the reactive carbonyl derivatives of proteins (RCD) in neutrophils at patients with varying severity of COPD. COPD exacerbations with development of respiratory failure had accompanied by the syndrome of bronchial obstruction at all patients. The 1 group (n = 29) included patients with COPD moderate severity, mixed form (emphysematous and bronchial). The 2 group (n = 21) consisted of patients with COPD, severe, mixed form. Group 3 (n = 35) included patients with COPD, moderate, bronchial type. Group 4 (n = 23) included patients with COPD, severe, bronchial type. In control group there were 32 healthy ones. All patients and healthy subjects had given their consent to participate. The RCD was measured in cells following the protocol of R.L. Levine et al. (1990). RCD level in neutrophils of patients with mixed form of COPD was lower compared with controls ones ($p<0,05$). RCD level in neutrophils of patients with bronchial type of COPD was higher compared with controls ones ($p<0,001$) and depended on COPD severity. Such kind of imbalance of protein carbonylation in neutrophils at restrictive and obstructive ventilatory dysfunction phenomenon may be considered as a one of the possible trigger factor and predictor of severe progressive course of COPD.