

## Relationship of the Content of Systemic and Endobronchial Soluble Molecules of CD25, CD38, CD8, and HLA-I-CD8 and Lung Function Parameters in COPD Patients

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### Abstract

© 2017 Nailya Kubysheva et al. The definition of new markers of local and systemic inflammation of chronic obstructive pulmonary disease (COPD) is one of the priority directions in the study of pathogenesis and diagnostic methods improvement for this disease. We investigated 91 patients with COPD and 21 healthy nonsmokers. The levels of soluble CD25, CD38, CD8, and HLA-I-CD8 molecules in the blood serum and exhaled breath condensate (EBC) in moderate-to-severe COPD patients during exacerbation and stable phase were studied. An unidirectional change in the content of sCD25, sCD38, and sCD8 molecules with increasing severity of COPD was detected. The correlations between the parameters of lung function and sCD8, sCD25, and sHLA-I-CD8 levels in the blood serum and EBC were discovered in patients with severe COPD. The findings suggest a pathogenetic role of the investigated soluble molecules of the COPD development and allow considering the content of sCD8, sCD25, and sHLA-I-CD8 molecules as additional novel systemic and endobronchial markers of the progression of chronic inflammation of this disease.

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