

ADIPOKINES IN INTERSTITIAL LUNG DISEASES

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Adipokines are a group of biologically active substances with hormone-like activity produced by adipose tissue. Adipokines take part in various processes including inflammation, angiogenesis, fibrogenesis. Their role in respiratory diseases was researched mainly in airway diseases and lung cancer. The data concerning adipokines involvement in interstitial lung diseases (ILD) are scarce. The aim of this study was to assess the concentrations of selected adipokines (apelin, adiponectin, chemerin, CMKLR1) in patients with ILD in comparison to COPD and healthy controls.

Material and methods: The study groups consisted of 83 patients with COPD (12), IPF (38), sarcoidosis (33) aged 18 to 83 years. The control group consisted of 78 healthy individuals. There was no differences in BMI between groups. The concentration of adipokines was measured with immunoenzymatic ELISA assay.

Results: The concentrations of all examined adipokines was significantly higher in study groups than in controls. The sarcoidosis patients had highest levels of chemerin (213,86 ng/ml), adiponectin (11,35 µg/ml) and CMKLR1 (98,86 µg/ml), while patients with IPF had higher concentration of adiponectin (10,48 µg/ml), moderately elevated concentrations of chemerin (187,68 ng/ml) and CMKLR1 (79,16 µg/ml).

Conclusion: The study demonstrated difference of adipokines concentrations in ILD, which can be connected with ongoing inflammation and fibrosis.