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**IL-18 and IL-10 in patients with occupational COPD, depending on the presence or absence of hypertension**

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**Abstract**

**Body:** Hypertension (HT) significantly increases the risk of adverse cardiovascular events and commonly accompanies COPD.

**Aim:** to assess the levels of IL-18 and IL-10 in the serum of patients with occupational COPD in combination with HT and isolated COPD patients.

**Methods:** In total, 100 COPD (GOLD 2, group B) patients in remission (79 males and 21 females) 54,42 ± 6,23 years old and 20 healthy volunteers were monitored. The COPD group in combination with HT stage II included 69 patients, the isolated COPD group - 31 patients. All patients underwent general clinical and laboratory examination, pulse oximetry, spirometry, electrocardiography, echocardiography and chest x-ray. IL-18 and IL-10 in peripheral blood were determined by ELISA using a test system «Bender MedSystems, GmbH» (Austria).

**Results:** Levels of IL-18 in serum were significantly higher in the COPD group in combination with HT stage II compared to the isolated COPD group and healthy controls (2641,3 (2171,3; 3550,2) pg/ml, 1821,5 (1607,7; 1968,9) pg/ml, 207,2 (195,3; 272,7) pg/ml, respectively, p<0,001). IL-10 levels in serum were significantly higher in the COPD group in combination with HT stage II compared to the isolated COPD group and healthy controls (77,9 (55,3; 112,3) pg/ml, 53,6 (35,3; 88,0) pg/ml, 47,1 (44,0; 49,2) pg/ml, respectively, p<0,005).

**Conclusions:** Elevated levels of IL-18 and IL-10 in the serum of patients with occupational COPD in combination with HT indicate an increase in systemic low-grade inflammation in patients with comorbid pathology - COPD and HT.

**Footnotes**

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