

PECULIARITIES OF COPD AND IHD CO-MORBIDITY IN PATIENTS WITH FREQUENT AND RARE EXACERBATIONS OF COPD

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Abstract

Chronic obstructive pulmonary disease (COPD) is one of the main causes of morbidity and mortality worldwide. Scientific data, generated recently have changed the views on COPD as on solely bronchopulmonary condition. In most COPD cases the cardiovascular system is also affected. The study of comorbid diseases, namely, COPD and ischemic heart disease (IHD) from the position of COPD phenotype is very relevant. First of all, this will help optimize the treatment, improve patient's quality of life by using timely rehabilitation programs and prevention.

The aim was to determine the clinical and functional features of COPD and IHD co-morbidity in patients with frequent and infrequent exacerbations of COPD.

Materials and methods. 31 patients with COPD and IHD were examined to identify the phenotype of COPD. The patients were divided into two groups. Patients with frequent COPD exacerbations phenotype were allocated to study group A. The patients with rare exacerbations were allocated to study group B. All patients underwent clinical examination and pulse oximetry. The degree of endothelium-dependent vasodilation was determined, BODE index, total blood count and lipid chemistry were taken.

Results. In a comprehensive assessment of COPD, taking into account the symptoms and the risk of exacerbations, 0 patients were classified as clinical group A, 15 patients — group B, 2 patients — group C and 14 patients — group D. The most prevalent were groups B and D. Patients with frequent exacerbations COPD phenotype had GOLD III airflow limitation (56,3%), whereas infrequent COPD exacerbations phenotype patients — type GOLD II (80 %). Mean FEV₁ was 56,7 ± 2,3 % predicted. Patients with more exacerbations had more severe bronchial obstruction. A direct correlation between the number of exacerbations of COPD and the BODE index was established, which indicates a higher risk of adverse cardiovascular events in these patients. The study demonstrated a significant difference in the indices of the endothelium function between study groups. Correlation of this parameter with absolute number of exacerbations, smoking history, functional class of heart failure by NYHA and FEV₁ was established.

Conclusions. Most patients with COPD and IHD have a COPD phenotype with frequent exacerbations, expressed endothelial dysfunction, severe dyspnea and higher risk of adverse cardiovascular events.

Key words: COPD, IHD, co-morbidity, phenotypes of COPD.

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