CHRONIC OBSTRUCTIVE PULMONARY DISEASE AND CARDIOVASCULAR PATHOLOGY WITH FOCUS ON ARRHYTHMIAS

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Abstract

Chronic obstructive pulmonary disease is a third leading cause of death worldwide according to the WHO data. But often the direct mortality cause in these patients is cardiovascular complications, including arrhythmias.

The *aim* of the study was to evaluate the concomitant cardiovascular pathology with focus on arrhythmia in patients with COPD.

Materials and methods. 100 COPD patients were enrolled, mean age (64,09 ± 1,94) years, 66 male (66 %) and 34 female (34 %). There were 68 smokers (68 %), mean smoking duration — (24,44 ± 4,84) pack-years. Mean COPD duration — (9,35 ± 2,42) years. Source medical document data analysis regarding ongoing cardiovascular conditions was conducted.

*Results***.** Arterial hypertension was the most prevalent concomitant cardiovascular condition in COPD patients (77 %). Ischemic heart disease was the second by prevalence (67 %). Heart failure, as possible complication of pulmonary hypertension, cor pulmonale and/or cardiovascular conditions was found in 70 % of cases.

Atrial fibrillation was observed in 18 % patients with COPD. Most patients suffered from atrial fibrillation with ventricular tachysystolia (14 %), which was quite typical for COPD due to hypoxia-related sympathetic nervous system activation.

*Conclusions***.** COPD and cardiovascular conditions have common pathogenetic mechanisms, leading to the occurrence of the mutual risks. COPD increases the risk of cardiovascular diseases progression and, conversely, presence of cardiovascular disease increases risk of COPD worsening. This connection creates a vicious circle of these diseases progression.

Key words. COPD, cardiovascular diseases, arrhythmias.

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