**CARDIAC REMODELING IN PATIENTS WITH COPD COMBINED WITH OBESITY**

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**Aims and objectives:** The study of cardiac remodeling in patients with COPD occurring in combination with obesity.

**Materials and methods:** 59 patients with COPD combined with obesity aged 59 to 77 years (46 (79%) male and 13 (21%) female), the average age was (68,0±7,3) years were examined. Gathering of the anamnesis, pulmonary function test and cardiac ultrasound were studied. The diagnosis is verified according to the criteria GOLD (2016).

**Results:** Patients were divided into groups according to BMI: Group 1 - 30 patients with COPD and BMI < 30 kg/m2, 2 group - 29 patients with COPD and BMI > 30 kg/m2. Among all patients, COPD group A was observed in 4 patients (6%), gr. B - 44 patients (76%), gr C - in 11 patients (18%). This is reflected in the frequency of COPD exacerbations. Exacerbations were observed in these groups 3 (14%), 4 (39%) and more than 4 times a year (47%), respectively. In 35% of patients with COPD combined with obesity revealed severe respiratory failure in 65% - medium severity. Pulmonary hypertension was found in 42% of patients. Chronic pulmonary heart verified in 32% of patients.

Analysis of the functional state of the myocardium has shown that patients of the 2nd group revealed a significant rise of left ventricle (LV) end-diastolic dimension by 5.6% (p <0.05), LV end-systolic dimension by 3 7% (p <0.05), LV end-diastolic volume by 9.5% (p <0.05), LV end-systolic volume by 4.1% ( p <0.05), stroke volume by 10.5% (p <0.05), LV myocardial mass by 8.2% (p <0.05), the size of the right ventricle (RV) by 8.2% (p <0.05), left atrium (LA) by 2.5% (p <0.05), thickness of interventricular septum at diastolic phase by 4.4% (p < 0.05), posterior LV wall thickness by 2.7% (p <0.05), the rate of ejection fraction lower by 1.7% (p <0.05) compared with the first group. The possible increase of the RV may indicate increased load right heart to the formation of pulmonary hypertension and the development of chronic pulmonary heart. Increase the value of stroke volume is compensatory in nature, which aims to preserve the pumping function of the heart.

**Conclusion:** Clinical and instrumental characteristics, as well as modern views on the formation of the right heart remodeling at patients with prolonged obstruction and overweight are presented. Our data suggest a more pronounced heart remodeling in COPD patients in combination with obesity