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THE RELATIONSHIP OF GALECTIN-3 CONCENTRATION AND ANTHROPOMETRY IN PATIENTS WITH ACUTE MYOCARDIAL INFARCTION AND OBESITY OF VARYING SEVERITY

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Aim of study. To analyze the levels of galectin-3 in patients with acute myocardial infarction depending on the presence of overweight and obesity of different severity, as well as to determine the nature of the relations with anthropometric indicators parameter.

Materials and methods. The study involved 78 patients with acute myocardial infarction with ST-segment elevation (mean age 72,43 ± 0,78 years). The study group included 55 patients with AMI and concomitant obesity. The control group (n = 23) included patients with AMI without obesity. There were 26 individuals with obesity of 1 degree and 17 persons with 2-3 degrees in the main group. Overweight was defined in 12 patients. AMI diagnosis was verified according to guidlines of the European Society of Cardiology. The presence of obesity according to WHO classification of body mass index (BMI) >30 kg /m^2, was calculated using the formula: BMI (kg / m^2) = weight / (height m)^2. To determine the galectin-3 using an enzyme immunoassay method using a set of «Human Galectin» ELISA Kit, China. Statistical data processing was carried out using the package «Microsoft Excel» program.

Results and discussion. Comparing patients with obesity 1, 2-3 degrees and AMI and non-obese patients revealed significant differences in the form of increased levels of galectin-3. Thus in patients with obesity of 1 degree the concentration of the indicator was higher by 58.1%, with grade 2-3 obesity - by 90.9% compared with patients with no evidence of obesity. As for the patients with AMI and overweight, there is a tendency to increase, which did not reach significance level (p = 0.06). BMI was significantly higher in patients with both overweight and obesity 1, 2-3 degrees when compared with patients without obesity. In order to study the nature of the relationships identified correlations. Patients who are overweight found a direct correlation between

the concentration of the weak force of galectin-3 and BMI (r = 0,32; p<0.05). In examining the links between these indicators in patients with obesity 1 degree and 2-3 degrees marked increase in power relations (r =0,56; p<0.05 and r = 0,56; p<0.05, respectively). In addition, the defined direct connection between the level of galectin-3 and a measure of waist circumference in obese patients 1 and 2-3 degrees.

Conclusions. The presence of abdominal obesity such as in patients with acute myocardial infarction is characterized by hypergalektinemia, rising according to the degree of obesity.

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BIOCHEMICAL FACTORS OF PROGNOSIS OF DEVELOPMENT OF CHRONIC HEART FAILURE IN PATIENTS WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE

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Abstract. According to data, increasing burden of chronic obstructive pulmonary disease (COPD) continues to grow, with approximate 300 million of people suffering the disease. It may become third leading cause of death after myocardial infarction to 2030. Cardiovascular pathology (CVP), which can develop in COPD patients include: hypertension (70.5 %), CHF (47.4 %), ischemic heart disease (37.5 %) and different rhythm violations (12.6 %).

Results and discussion. According to data, COPD is commonly complicated with CHF due to sharing common pathogenetic mechanisms and clinical data. Breathlessness (dyspnea) is found in 56–98 % of COPD patients and 18–88 % of CHF patients. Data show COPD prevalence in 20–32 % of patients with CHF, and in 10 % of patient with CHF examination reveals COPD. Risk of CHF development is 4.5 times higher, than in no COPD patients, without dependence on other cardiovascular risk factors. In 37.3%, presence of obstruction appear, but this insignificantly influences their survival. Ventricle dysfunction, which is diagnosed in 17 % of cases significantly reduces prognosis and increases mortality of such patients. According to Framingham study,