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CLINICAL AND ANGIOGRAPHIC FEATURES OF PATIENTS WITH LEFT MAIN CORONARY ARTERY DISEASE

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Relevance. The left main coronary artery (LMCA) disease is the highest-risk lesion subgroup among the different types of obstructive coronary artery disease (CAD) and is associated with poorer outcomes [1]. Coronary artery bypass grafting (CABG) is the «gold standard» in the treatment of LMCA disease. Despite its clinical significance, uncertainties persist regarding the optimal management strategy for patients, particularly given its phenotypic variations.

Target. This study was aimed to identify clinical and angiographic features of patients with LMCA disease.

Research methods. The single-center study included 106 patients with chronic coronary syndrome, who were admitted to the Grodno Regional Cardiological Center for diagnostic coronary angiography from January 2023 to December 2025. Patients were divided into 2 groups according to the coronary angiography results: Group 1 included 46 patients with LMCA disease ($>50\%$ stenosis), while Group 2 – included 60 patients with non-LMCA disease defined as obstructive stenosis in one or more epicardial coronary arteries not involving the LMCA.

Patients underwent coronary angiography with possible percutaneous coronary intervention (PCI) in the X-ray operating room on the Philips Azurion angiographic unit. Statistical analysis was performed using the Statistica 12.0 software.

Results and their discussion. Patients of both groups were comparable in age ($p>0.05$); with male gender being more common in patients with LMCA (80.4% vs. 60%, $p=0.034$). There were no significant intergroup differences in the prevalence of hypertension, diabetes mellitus and prior myocardial infarction ($p>0.05$).

Angiographic decision of CABG was three times more common in LMCA stenosis group (65.2% vs. 20%, $p<0.001$), while in patients with non-LMCA disease PCI was prevalent (58.3 vs. 26.1%). In patients with LMCA disease approximately half of patients had proximal and ostial involvement – 22 (47.8%) while 24 (52.2%) had middle part and distal stenosis. 20 patients with proximal LMCA affection undergone

CABG operation, while in 2 patients PCI was performed. In patients with middle part and distal involvement stenting was more common (10 operations out of 24 (41.6%), while 14 (58.4%) patients received traditional CABG surgery.

Conclusions. This study demonstrates that patients with LMCA disease were characterized by significantly higher number of stenotic coronary segments and vessels and higher incidence of CABG in comparison with non-LMCA group. However PCI becomes a more common and effective treatment method in this patient group, especially in distal LMCA involvement. We recommend prospective large-scale studies to develop a predictive model of obstructive LMCA disease.

LITERATURE

1. Left Main Coronary Artery Disease: Secular Trends in Patient Characteristics, Treatments, and Outcomes / P. H. Lee, J. M. Ahn, M. Chang [et al.] // Journal of the American College of Cardiology. – 2016. – Vol. 68, № 11. – P. 1233–1246.

LEUKOCYTE INDEXES IN PATIENTS WITH COMMUNITY ACQUIRED PNEUMONIA

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Relevance. Pneumonia is a group of acute infectious diseases of the lungs with varying etiologies, pathogenesis, and morphological characteristics. Occasionally, standard blood tests might not reveal clear abnormalities even when endogenous intoxication is present. In some patients, acute forms of disease may transition to chronic pathology due to a decrease in the body's adaptive capacity [1].

To analyze endogenous intoxication in inflammatory processes special leukocyte indices and formulas can be used. [2]

Target. To express changes in the leukocyte indexes in patients with community acquired pneumonia.

Research methods. A retrospective analysis included 119 CAP patients (mean age 30.8 ± 8.8 years) at City Clinical Hospital No. 2 of Grodno. All were evaluated according to Ministry of Healthcare diagnostic and treatment protocols.

Laboratory analysis was performed on two samples, before and after treatment, with leukocyte indexes calculated: Index of allerginization (IA), Garkavi adaptation index, Krebs index, nuclear shift index (NSI), resistance index (RI) and leukocyte intoxication index (LSI). Ratios such as leukocyte/ESR, neutrophil/monocyte (NMR) lymphocyte/monocyte (LMR), lymphocyte/eosinophil (LER), and neutrophil/lymphocyte (NLR) were assessed as novel inflammatory markers reflecting immune system phases. Peak expiratory flow (PEF) was measured as a percentage of normal on days 4–5 after admission.