

laboratory research methods. According to the results of ECG, 24 patients had paroxysmal AF (Group 1), and 29 patients had sinus rhythm (Group 2). Upon admission, a resting standard 12-lead ECG was recorded. ECGs were taken at a paper speed of 50 mm/s and calibration of 10 mm/mV. Statistical analysis was performed using the STATISTICA 12.0 software.

Results and discussion. Patients in both groups were comparable in age ($p>0.05$) and gender, with male gender predominant in both groups ($p>0.05$). There were no significant intergroup differences in the prevalence of such comorbidities as hypertension, obesity, myocardial infarction history and diabetes mellitus ($p>0.05$). It is interesting that patients of both groups 1 and 2 had no significant differences in all studied electrocardiographic parameters, including QT interval duration, as well as corrected QT interval according to both Bazett and Fridericia formulas. The only ECG parameter that was higher in patients with AF was PQ interval duration (176.3 [160; 180] vs. 153.5 [140; 180] ms, $p=0.003$). When conducting a univariate ROC analysis, it was found that with a PQ interval value of more than 180 ms, a high probability of developing paroxysmal AF is determined with sensitivity of 66.7%, and specificity of 72.4%. The area under the ROC curve was 0.74 (95% CI 0.60–0.88), $p=0.012$.

Conclusions. Our study showed that PQ interval prolongation >180 ms is independently associated with the development of AF, particularly in specific population of patients with CAD. This highlights that the further study of clinical and ECG characteristics in paroxysmal AF should be conducted.

LITERATURE

1. Thomas, M. R. Novel Risk Markers and Risk Assessments for Cardiovascular Disease / M. R. Thomas, G. Y. Lip // Circ Res. – 2017. – Vol. 120, № 1. – P. 133–149.

CLINICAL AND ECHOCARDIOGRAPHIC FEATURES OF ELDERLY PATIENTS WITH MYOCARDIAL INFARCTION

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Relevance. Acute myocardial infarction (MI) represents a intense injury to the myocardium. The clinical presentation, risk factor profile, and prognosis of MI, however, they vary across all age groups. Elderly patients, who represent a larger part of the MI population, present a distinct clinical picture compared to their younger counterparts [1 c. 1].

Target. To establish clinical, and angiographic features of elderly (>70 years old) patients with MI.

Research methods. The study included 104 patients with acute MI who were admitted to the Grodno Regional Clinical Cardiological Center (Belarus) for treatment from January 2024 to November 2025. Patients were divided into 2 age categories: Group 1 included 46 patients >70 years old, and Group 2 included 58 patients ≤70 years old. In this study, patients were diagnosed with MI based on clinical symptoms, signs, ECG findings, and cardiac biomarker values, and they underwent coronary angiography with possible percutaneous coronary intervention (PCI) at the same center in the X-ray operating room. Statistical analysis was performed using the Statistica 12.0 software.

Results and their discussion. Patients in Group 1 were significantly older, with a median age of 77 years compared to 60.7 years in Group 2 ($p=0.0001$), and had a significantly lower proportion of males (54.3% vs. 84.9%, $p=0.001$). Although the median body mass index was similar in the two groups ($p>0.05$), the proportion of obese patients was significantly higher in Group 2 (44.8% vs. 23.9%, $p=0.038$). Moreover, the two groups were well-matched regarding comorbidities such as diabetes mellitus and atrial fibrillation, with no statistically significant differences ($p>0.05$).

The coronary angiography showed a clear difference in the intervention strategies between the groups, despite the similarities in the patterns of coronary atherosclerosis. There were no significant differences in the distribution of the involved vessels among the major coronary arteries, which included the left main, left anterior descending, left circumflex, and right coronary arteries ($p>0.05$). Stenting was more common in Group 2 than in Group 1 (63.7% vs. 41.3%, $p=0.029$). On the other hand, coronary artery bypass grafting was done more in Group 1 than in Group 2 (47.8% vs. 22.4%, $p=0.011$), indicating a preference for surgical revascularization in this patient group.

Conclusions. The results showed that due to the high prevalence of MI in the elderly, it should be addressed within healthcare systems. Randomized trials will be needed to determine the best revascularization procedure which will be the most beneficial in elderly patients with MI, in terms of less symptoms, better outcome, and improved quality of life.

LITERATURE

1. Wang, J. Clinical investigation of acute myocardial infarction according to age subsets / J. Wang, L. Li, N. Ma [et al.] // Experimental and Therapeutic Medicine. – 2020. – Vol. 20, № 5. – P. 120. – DOI: 10.3892/etm.2020.9248.