

Diabetes mellitus in patients with atrial fibrillation

Научный руководитель – Солдатова Галина Сергеевна

Пудинаева Манижа Валиджоновна

Graduate (specialist)

Новосибирский национальный исследовательский государственный университет,

Новосибирск, Россия

E-mail: pudinaeva.manizha@gmail.com

Relevance. Atrial fibrillation (AF) is one of the most common types of heart rhythm disorders, accounting for a third of hospitalizations for arrhythmias. Today, in clinical practice, AF is combined with type 2 diabetes mellitus (T2DM) in approximately 35% of cases. According to the results of epidemiological studies, these patients have a higher risk of hemostasiological and hemodynamic disorders, which significantly worsen their prognosis and predispose them to thrombotic and thromboembolic complications.

Purpose of the study. To evaluate the structure of cardiovascular risk factors and cardiovascular pathologies in patients with T2DM in combination with AF.

Material and methods. The study included 70 patients. Group 1 consisted of patients with T2DM and AF, n=50; group 2 - patients with T2DM without AF, n=20. The average age in group 1 was 68.0 ± 8.12 years, and in the comparison group 66.7 ± 7.8 years. The work assessed clinical, anthropometric indicators, as well as the results of instrumental diagnostics: electrocardiography (ECG), Holter ECG monitoring, echocardiography (EchoCG), ultrasound examination of the brachiocephalic arteries (BCA) and arteries of the lower extremities.

Results and its discussion. In the main study group, women predominated (74%), the following indicators were statistically significantly different: waist circumference was larger ($p=0.02$), hip circumference ($p=0.00$), waist-to-hip ratio ($p=0.01$). Among patients with AF and T2DM, persistent and constant forms of atrial fibrillation predominated. An ultrasound examination of the brachiocephalic arteries revealed initial signs of atherosclerosis and vascular stenosis in groups 1 and 2. And an ultrasound examination of the arteries of the lower extremities revealed a significantly significant predominance of initial signs of atherosclerosis of the lower extremities in 40% of patients in group 1 and 15% in group 2, the presence of stenosis in 18% in group 1 and 10% in group 2.

Conclusions. In patients with T2DM and AF, persistent and permanent forms of atrial fibrillation were common. Atherosclerotic lesions according to ultrasound of the brachiocephalic arteries and lower extremities are more pronounced in patients with T2DM and AF than in patients without AF. This suggests that AF is an additional risk factor for the development and progression of atherosclerosis.