PAROXYSMAL VS PERSISTENT ATRIAL FIBRILLATION: CLINICAL AND ECHOCARDIOGRAPHIC DIFFERENCES

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Introduction. Atrial fibrillation (AF) is a multifaceted arrhythmia characterized by aberration of atrial electrical activity, culminating ineffective atrial contraction & irregularly irregular ventricular response. It intricately links to a spectrum of pathophysiological underpinnings including atrial structure and electrical remodeling, neurohumoral dysregulation, genetic susceptibility etc. AF is classified into subtypes including paroxysmal form where the spontaneous reversion of sinus rhythm typically within 7 days and persistent form which lasts longer than 7 days which necessitates therapeutic intervention in restoring sinus rhythm. Currently, it is a major healthcare issue prevalent in general practice, which makes our research relevant.

Aim of the study. To establish clinical and echocardiographic differences of patients with paroxysmal and persistent form of AF.

Materials and methods. The study included 84 patients, who were admitted to the Grodno State Cardiological Center for treatment from May 2024 to January 2025. Group 1 included 39 patients with paroxysmal AF while Group 2 included 45 patients with persistent AF. Exclusion criteria of the study was: STEMI, chronic rheumatic heart disease, acute myocarditis, valvular pathology of the heart requiring surgical correction, prosthetic heart valves, oncological diseases and severe concomitant extracardiac pathology. All patients underwent clinical, laboratory, and instrumental studies including transthoracic echocardiography. Statistical analysis was performed using the STATISTICA 12.0 software.

Results and discussion. Patients with paroxysmal AF were older than patients with persistent AF (71 [64; 76] vs 62 [56; 67] years, p=0.02). Patients of Group 1 were predominantly female (male gender only 36%), while in Group2 male patients were the majority 69%, p=0.01). Patients with persistent AF had significantly higher body mass index (33.4 [28; 36] vs 28.7 [24; 30] kg/m2, p=0.002) and more often had obesity (46.6% vs 20%. p=0.009) than patients with paroxysmal AF. Patients of both groups had no differences in prevalence of hypertension (100% vs 95%, p>0.05) and diabetes mellitus (25% vs 31%, p>0.05).

According to the results of transthoracic echocardiography, patients with persistent AF had significantly higher left atrial diameter (43 [41; 45] mm vs 39.7 [37; 43] mm, p=0.003) and right atrial diameter (40.8 [38; 43] mm vs 37.2 [34; 39.5] mm, p=0.007) than patients with paroxysmal AF.

Also, patients of Group 2 showed a significant increase in the volumetric dimensions of the left ventricle (LV) (LV end-diastolic volume (p=0.01) and LV

end-systolic volume (p=0.004) and decrease in LVEF (57 [54; 63] vs 64 [61; 69]%, p=0.003) in comparison with Group 1.

It's interesting that patients of both groups didn't have differences in values of diameter of the right ventricle (27.3 [25; 30] mm 26.4 [24; 28] vs p>0.05), but pulmonary artery systolic pressure was higher in patients of Group 2 (40.7 [37; 42] mmHg vs 32.3 [28; 35] mmHg, p<0.001).

Conclusion. Patients with persistent form of AF were predominantly male and had significantly higher body mass index. According to the results of echocardiography, patients with persistent form of AF had larger sizes of atria and volumes of LV as well as lower LVEF, which is associated with the formation of LV systolic dysfunction. A possible connection between the obtained results and future adverse outcomes of AF progression requires further studies.

EVALUATING TREATMENT APPROACHES IN MIRIZZI SYNDROME

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Introduction. Mirizzi syndrome is a rare but serious complication of gallstone disease, which causes the compression of the common hepatic duct, potentially leads to strictures or Cholecystobilliary fistulas. The results show that incidence of MS has increased due to rising prevalence of gallstone disease and also due to delay in surgical intervention. It occurs in 1-5% of patients post cholecystectomy, with having a mortality rate of 11-14%. Preoperative diagnosis is often missed in this case but with only 12-22% correctly identified.

Aim of the study. Analysis of the results of treatment of patients with Mirizzi Syndrome.

Materials and methods. We present our clinical observation. The patient, a 66-year-old woman, was admitted to the surgical department of GRCH with a diagnosis of "Gallstone disease: chronic calculous cholecystitis, choledocholithiasis" for further examination and surgical treatment. She complained of periodic dull pain in the right hypochondrium, nausea, and bitterness in the mouth. From her medical history, she had been suffering from gallstone disease for a long time. A week prior to admission, she developed jaundice and was treated in a surgical hospital at her place of residence. Ultrasound examination revealed The gallbladder: wrinkled, with a 15 mm calculus in its projection; intrahepatic ducts are not dilated.", magnetic resonance imaging MRI was performed. The liver appeared normal in shape and size, without focal pathology. Intrahepatic bile ducts were not dilated, and the gallbladder was reduced in size and sclerosed, containing an irregularly shaped calculus measuring up to 15.5 x 11 mm. This calculus was prolapsing into the