

ЛИТЕРАТУРА

1. Радиационно-индуцированный "байстэндер" эффект in vivo в клетках человека / П. М. Морозик [и др.] // Молекулярная и прикладная генетика. – 2009. – № 9. – С. 134–138.
2. Морозик, П. М. Эффект свидетеля – его общеприкладное и прикладное значение / П. М. Морозик, С. Б. Мельнов. // Проблемы здоровья и экологии. – 2004. – № 2. – С. 7–16.
3. Role of epigenetic effectors in maintenance of the long-term persistent bystander effect in spleen in vivo / Igor Koturbash [et al.] // Carcinogenesis. —Vol. 28, iss. 8. – 2007. – P. 1831–1838.

ELECTROCARDIOGRAPHIC FEATURES OF PATIENTS WITH HEART FAILURE WITH PRESERVED AND REDUCED EJECTION FRACTION

Andarage Ruwani Sithara,
Sanduni Dulanga Wickrema Seneviratne

Grodno state medical university

Научный руководитель: Kalatsei L.V., PhD in M

Introduction. Heart failure (HF) is divided into heart failure with reduced ejection fraction (HFrEF) and heart failure with preserved ejection fraction (HFpEF). Approximately 50% of patients hospitalized for HF have HFpEF [1]. A number of studies have demonstrated that several markers detected on the routine ECG are associated with future HF events [1, 2]. However, it is currently unknown if a differential risk profile exists for these ECG markers in the prediction of HFrEF vs HFpEF. The ability to identify specific electrocardiographic predictors for HFrEF and HFpEF is an important step to target appropriate preventive strategies for each HF phenotype.

Aim of the study. To evaluate electrocardiographic features of patients with HFrEF and HFpEF.

Materials and methods. The retrospective study included 61 patients with chronic HF admitted at Grodno Regional Clinical Cardiology Center. 24 patients (39%) had HFrEF and 37 (61%) patients had HFpEF. The inclusion criteria were patients with HF diagnosed based on ESC (2021) guidelines [2], the presence of sinus rhythm, age > 18 years and agreement to participate in the study. The exclusion criteria were patients with congenital heart disease, primary valve disease, massive pericardial effusion, patients with acute coronary syndrome, or who had pacemakers. At admission, a resting standard 12-lead ECG was recorded. Indicators of electrical instability of the ventricular myocardium (QT interval dispersion, JT interval dispersion, QRS complex fragmentation (fQRS)) were determined automatically using a computer program for the diagnosis and prediction of life-threatening cardiac arrhythmias «Intecard-7.3». Statistical analysis was performed using the STATISTICA 12.0 software.

Results and discussion. Patients with HFrEF and HFpEF were comparable in age (59 [49; 69] vs 60 [55; 67] years, $p>0.05$), prevalence of coronary artery disease (20 (83%) vs 27 (87%), $p>0.05$), hypertension (19 (79%) vs 28 (76%), $p>0.05$) and diabetes mellitus (3 (13%) vs 4 (11%), $p>0.05$). However, patients with HFrEF were predominantly male (21 (87%) vs 20 (54%), $p=0.013$) and more often suffered from myocardial infarction (10 (42%) vs 8 (22%), $p=0.048$) than patients with HFpEF.

According to the results of ECG analysis, patients of both groups didn't have significant differences in QT interval dispersion (72 [62; 85] vs 68 [51; 84] ms, $p=0.46$) and JT interval dispersion (69 [51; 83] vs 66 [52; 78] ms, $p=0.60$). However, fQRS was more frequent in patients with HFrEF compared with HFpEF (9 (38%) vs 5 (14%), $p=0.03$) and spatial QRS-T angle was also larger in patients with HFrEF (127 [102; 158] vs 77 [39; 109], $p<0.001$).

Patients of both groups didn't have differences in T-wave alteration prevalence and R wave asymmetry ($p>0.05$).

Conclusion. Patients with HFrEF had higher values of ventricular depolarization parameters such as fQRS and spatial QRS-T angle ($p<0.05$) in comparison with patients with HFpEF. However, there were no intergroup differences in ventricular repolarization markers ($p>0.05$). Reliability of the obtained results should be further checked on larger samples of patients.

ЛИТЕРАТУРА

1. Hendry, P.B. Scoring System Based on Electrocardiogram Features to Predict the Type of Heart Failure in Patients With Chronic Heart Failure / P.B. Hendry, L. Krisdinarti, M. Erika // Cardiol Res. – 2016. – Vol. 7, №3. – P. 110–116.
2. 2021 ESC Guidelines for the diagnosis and treatment of acute and chronic heart failure / T.A. McDonagh [et al.] // Eur Heart J. – 2021. – Vol. 42, №36. – P. 3599–3726.

TAKOTSUBO CARDIOMYOPATHY – THE BROKEN HEART SYNDROME

Anjelo Leard, Dinithi Ranchagoda, Hasini Ranasinghe,
Zaakiya Ganem Zamzam

Grodno state medical university

Научный руководитель: PhD in M, Senior lecturer Bubeshka Darya

Introduction. Takotsubo cardiomyopathy also referred to as stress induced cardiomyopathy is a condition that most commonly seen in post-menopausal women^[1] with an average age of 68 years^[2]. This form of cardiomyopathy is very uncommon and accounts for 0.7 to 2.7% of patients who present with acute coronary syndrome. It should be acknowledged that the overall incidence is suspected to be