**Abstract**

Objective. frequency of heart rhythm disturbances (HRD) and cardiac electrophysiological parameters depending on the presence of left ventricular hypertrophy (LVH) in patients with primary arterial hypertension (AH).

**Materials and methods.** The study included 157 patients (89 men and 68 women) aged from 43 to 65 years (54.2± 6.3 years) with 1–2 grades of AH. All the patients underwent electrocardiography (ECG), blood pressure (BP) monitoring, diagnostic transesophageal electrical stimulation of the heart, echocardiography, and the assessment of heart rate variability (HRV). According to echocardiography, 64 patients (40.8%) had LVH (group 1), and 93 patients (59.2%)— had not (group 2).

**Results.** Various HRD were identified in 68 patients (43.3%)— in group 1 in 40 patients (62.5%), and in group 2 in 28 patients (30.1%). The most common HRD was atrial fibrillation (12.7%), supraventricular (13.4%) and ventricular (11.5%) extrasystoles, the frequency of which was 3–4 times higher in the 1st group compared with the 2nd group. 15 patients (9.6%) had asymptomatic paroxysmal supraventricular tachycardia and latent sinus node dysfunction. In both groups, patients with HRD, showed greater P-wave dispersion, and the parameters of atrial effective refractory period (aERP) and vagosympathetic balance SDNN were lower compared with patients without HRD.

**Conclusion.** Thus, the presence of LVH in patients with AH was associated with a high incidence of HRD and cardiac electrical remodeling, which should be considered during cardiac risk stratification.

**Keywords:** arterial hypertension, left ventricular hypertrophy, heart rhythm disturbances.