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**Effect of cardiac resynchronization therapy on ventricular tachycardias in patients with dilated cardiomyopathy and severe heart failure**

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The aim of the study was to elucidate effects of the cardiac resynchronization therapy (CRT) on ventricular tachycardias (VT) in patients with dilated cardiomyopathy (DCM) and to analyze the prospects of the radionuclide diagnostic methods for prediction of the life-threatening arrhythmias. The study included 70 patients aged 32 to 75 years (mean age 55 ± 12 years) with DCM, NYHA III heart failure, the left ventricular (LV) ejection fraction (EF) of 30.1 ± 3.8%, and end-diastolic volume (EDV) of 220.7 ± 50.9 mL. The first group included 35 patients (50%) with paroxysms of VT while. The second group consisted of 35 patients (50%) without VT. After one year of CRT, positive clinical changes were documented in all patients: LV EF increased to 42.8 ± 4.8% (p = 0.001); functional class of heart failure decreased to II; LV EDV decreased to 197.9 ± 47.8 mL (p = 0.005). The patients whose EF increased by 14% and EDV decreased by 35 mL during one-year CRT had no episodes of VT. In patients, with VT during the entire period of the study EF increase on 9% and EDV decrease on 13 mL. We also analysed of myocardial metabolism defects (MMD). VT were not registered in patients whose MMD became less than 15% during CRT; if the size of DMM exceeded 15%, paroxysms of VT were observed. Thus, efficacy of CRT in patients with DCM results in a statistically significant reduction of the number of VT. The improvement of the fatty acid metabolism contributes to a decrease in the reduction of VT episodes number during CRT.