

Evaluation of cardiac resynchronization therapy in drug-resistant dilated-phase hypertrophic cardiomyopathy by means of Tc-99m sestamibi ECG-gated SPECT

Shinro MATSUO,* Yuichi SATO,** Ichiro NAKAE,* Daisuke MASUDA,*
Naoya MATSUMOTO** and Minoru HORIE*

**Department of Cardiovascular and Respiratory Medicine, Shiga University of Medical Science*

***Department of Cardiology, Nihon University School of Medicine*

This case describes a 65-year-old male with drug-resistant heart failure. Cardiac resynchronization therapy was performed. We evaluated cardiac function with volume curve differentiation software (VCDiff) from QGS data with Tc-99m sestamibi. Left ventricular parameters during atrial-right ventricular pacing were left ventricular ejection fraction (LVEF) 30%, end-diastolic volume (EDV) 156 ml, end-systolic volume (ESV) 108 ml and peak filling rate 1.12 (EDV/sec). And during dual chamber pacing, those were LVEF 35%, EDV 145 ml and ESV 95 ml and PFR 1.58 (EDV/sec). And during atrial-left ventricular pacing, those were LVEF 36%, EDV 152 ml, ESV 97 ml and peak filling rate (PFR) 1.35 (EDV/sec). Cardiac resynchronization therapy may improve cardiac function as well as dyssynchrony, which could be evaluated non-invasively and accurately by ECG-gated SPECT.

Key words: quantitative gated SPECT (QGS), cardiac resynchronization therapy, cardiac function