

REVERSE LEFT VENTRICULAR REMODELING IN PATIENTS WITH CHRONIC HEART FAILURE RECEIVING MEDICAL TREATMENT

Tsuei-Yuan Huang, Por-Ming Ku, Section of Cardiology, Chi-Mei Medical Center, Tainan, Taiwan

BACKGROUND/AIMS :

Left ventricular systolic dysfunction (LVSD) is usually irreversible in patients with chronic heart failure (CHF). Uncommonly, CHF patients with LVSD may have dramatic improvements and the LV systolic function even normalizes with medical treatment.

METHODS :

In Chi-Mei Foundation Hospital we enrolled CHF patients with documented LVSD which improved dramatically on medical follow-up (LVEF < 45% → >55% by echocardiography and/or radionuclide ventriculography). Patients with atrial fibrillation were excluded. The changes of NYHA CHF functional class, EKG and echocardiographic parameters were analyzed. Paired t-test was used for statistical comparison. .

RESULTS :

There were 9 consecutive patients with chronic heart failure (CHF) with reversed LVSD. The age was 62.9±15 years, with 3 females and 6 males. Diabetes was noted in 3/9, hypertension in 8/9, ischemic heart disease in 1/9, and myocardial infarction in 0/9. The medications included ACEI /ARB in 9/9, beta-blockers in 7/9, diuretics in 9/9, and digitalis in 4/9. LVSD improved on follow-up of 6 to 72 months (average 28.1 months). The functional class of CHF improved from 2.9±0.3 to 1.5±0.5 (p < 0.001). The EKG findings showed LV hypertrophy in 7/9 initially and in 2/9 after reversal of LVSD. The LVEF improved: 35.1±6.7% to 62.8±3.7%. The LV end systolic volume improved: 131±38.4 to 48.4±9 ml (p< 0.001). The LV end-diastolic volume improved: 200±54.1 to 134±29.3 ml (p=0.025)

DISCUSSION/CONCLUSIONS :

Reverse remodeling was demonstrated in patients with CHF and LVSD in sinus rhythm. The clinical implication of reversal of of LVSD needs further exploration.

Key words: Chronic heart failure, Left ventricular systolic dysfunction, Reverse ventricular remodeling