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ASSESSMENTS OF PATENTS WITH CHRONIC LEFT HEART FAILURE USING CARDIOPULMONARY EXERCISE TESTING

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Objective To assess the exercise capacity of chronic left heart failure using cardiopulmonary exercise testing (CPET).

Methods 20 patients with chronic left heart failure (CHF) from August 2010 to December 2010 in our department were enrolled in the current study. 27 matched subjects with normal cardiopulmonary function were enrolled as control group. CPET was performed to all patients, and clinical characteristics and routine tests results were collected.

Results Compared with the control group, anaerobic threshold, peak VO_2 , peak VO_2/HR , peak VO_2/pred . and peak heart rate significantly increased ($p < 0.01$) in patients with CHF, while VE/VCO_2 slope significantly decreased. In Pearson and partial correlation, NT-proBNP, LVEF, peak HR and peak SBP were all significantly correlated with AT, peak VO_2 , peak VO_2/HR , peak VO_2/pred and VE/VCO_2 slope.

Conclusions The exercise capacity of patients with CHF is much poorer than control subjects. CPET variables are significantly correlated with the variables of regular clinical measurements and can objectively evaluate exercise capacity and cardiopulmonary function of CHF patients.