Methods Total of 50 CHF patients were enrolled in the study, left ventricular ejection fraction (LVEF) <0.49 by echocardiography and were randomly divided into aerobic exercise group (T group) 25 cases and non-aerobic exercise group (non-T group) 25 cases, and both two groups were divided into two subgroups by body mass index ($\text{BMI} < 24 \text{ kg/m}^2$ and $\text{BMI} \geq 24 \text{ kg/m}^2$), cardiopulmonary exercise testing (CPET) were performed. The patients of T group executed the aerobic exercise prescription which exercise intensity is decided by anaerobic threshold (AT) before 10W (1 min before) of the oxygen consumption, non-T group required daily activities. After six sessions under supervised aerobic exercise training, the home-based aerobic exercise training began. Echocardiography were reviewed 3 months later respectively.

Results The differences of the left ventricular end diastolic diameter (LVEDD), left ventricular end systolic diameter (LVESD), left atrial diameter (LAD), left ventricular mass (LVM), left ventricular mass index (LVMI) between baseline and 3 months later in both T group and non-T group were not statistically significant ($p > 0.05$), and the differences of ΔLVEDD , ΔLVESD , ΔLAD , ΔLVM , ΔLVMI between T group and non-T group were not statistically significant ($p > 0.05$). But the patients in subgroup of BMI lower than 24 kg/m^2 , LVESD, LVM, LVMI in T group were decreased compared with baseline, LVEDD enlarged less than non-T group, and the differences of ΔLVEDD , ΔLVESD , ΔLVM , ΔLVMI between T group and non-T group were significant ($p < 0.05$), no significant difference of ΔLAD between T group and non-T group ($p > 0.05$).

Conclusion After 3 months of aerobic exercise, the effect on left ventricular and left atrial remodelling are poor, only to improve or delay the left ventricular remodelling of BMI $< 24 \text{ kg/m}^2$ patients with CHF.

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THE EFFECTS OF AEROBIC EXERCISE ON LEFT ATRIAL AND VENTRICULAR REMODELLING IN PATIENTS WITH CHRONIC HEART FAILURE

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Objective To study the effects of aerobic exercise on left atrial and ventricular remodelling in patients with chronic heart failure (CHF).