

Effect of Beta Blocker Therapy on One Year Mortality of Patients with Heart Failure and Preserved Systolic Function Following Hospitalization with Acute Decompensated Heart Failure.

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Background: The importance of heart failure with preserved ejection fraction is increasingly recognized. There is a lack of data about effective treatment of this condition. The present study investigated the impact of beta blocker therapy for 3 months before admission on one-year survival of patients with heart failure and preserved systolic function hospitalized due to decompensated heart failure.

Methods: We performed a retrospective cohort analysis of 345 consecutive patients with heart failure with preserved systolic function older than 18 years hospitalized due to decompensated heart failure between 11/December 2001 and 06/June 2005. Two groups of patients were compared: those who received beta blockers within 3 months before the admission (BB) and those who did not (NBB). The primary outcome was one-year all cause mortality. To adjust for a potential misbalance between BB and NBB groups in baseline characteristics, a propensity score for beta blocker therapy was incorporated into the survival model.

Results: 154 patients (44.6%) of patients with heart failure with preserved systolic function received beta blockers prior to admission. Overall one year mortality rate in the BB group was 27.3% vs. 37.2% in the NBB group with borderline significance Log-rank test $p=0.05$. Beta blockers failed to show protective effect after adjustment for comorbidities and propensity score (hazard ratio [HR], 0.68; 95% CI 0.41-1.11).

Conclusions: In our study therapy with beta blockers did not show protective effect on one year survival in heart failure patients with preserved systolic function.