

Differential Effect of Left Ventricular Ejection Fraction on Long Term Mortality in Patients Hospitalized with Acute Heart Failure: Data from the HFSIS 2003 Registry

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Background:

Contemporary heart failure (HF) therapies have not resulted in improved outcome among HF patients with preserved left ventricular (LV) function. We sought to evaluate the differential effect of LV function on long term mortality following hospitalization for acute HF patients in a real world setting.

Methods:

All-cause mortality at 4 years following hospitalization for HF was assessed by LV ejection fraction (LVEF, categorized as preserved [$\geq 50\%$], mildly- [40%-49%], moderately- [30%-39%], and severely- [$< 30\%$] reduced) among 1620 patients enrolled in the Heart Failure Survey in Israel.

Results:

Among study patients 30% had preserved LVEF, and 20%, 25%, and 25%, had mild, moderate, and severe, reductions in LVEF, respectively. The cumulative probability of death at 4 years was highest among those with reduced LVEF, and similar between patients with preserved LV function and those with mild or moderate reductions on LVEF (Figure). Consistently, multivariate analysis showed that patients with severely reduced LVEF had a 20% ($p=0.03$) increased risk for 4-year mortality compared with preserved LVEF patients, whereas patients with mild or moderate reduction in LVEF had a similar mortality risk as those with preserved LVEF (HR=0.91 [$p=0.33$] and 1.02 [$p=0.85$], respectively).

Conclusion:

Long-term mortality is similar between HF patients preserved LVEF and those with mild or moderate reductions in LV function. Severely reduced LVEF remains an independent predictor of outcome in this population.

