Outcomes in younger and older adults with chronic advanced systolic heart failure: a propensity-matched study.

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Abstract

BACKGROUND: Older age is an independent predictor of all-cause mortality in patients with mild to moderate heart failure (HF). Whether older age is also an independent predictor of mortality in patients with more advanced HF is unknown.

METHODS: Of the 2707 Beta-Blocker Evaluation of Survival Trial (BEST) participants with ambulatory chronic HF (New York Heart Association class III/IV and left ventricular ejection fraction <35%), 1091 were elderly (≥ 65 years). Propensity scores for older age, estimated for each of the 2707 patients, were used to assemble a cohort of 603 pairs of younger and older patients, balanced on 66 baseline characteristics.

RESULTS: All-cause mortality occurred in 33% and 36% of younger and older matched patients respectively during 4 years of follow-up (hazard ratio {HR} associated with age ≥ 65 years, 1.05; 95% confidence interval {CI}, 0.87-1.27; P=0.614). HF hospitalization occurred in 38% and 40% of younger and older matched patients respectively (HR, 1.01; 95% CI, 0.84-1.21; P=0.951). Among 603 pairs of unmatched and unbalanced patients, all-cause mortality occurred in 28% and 36% of younger and older patients respectively (HR, 1.34; 95% CI, 1.10-1.64; P=0.004) and HF hospitalization occurred in 34% and 40% of younger and older unmatched...
patients respectively (HR, 1.24; 95% CI, 1.03-1.50; P=0.024).

CONCLUSION: Significant bivariate associations suggest that older age is a useful marker of poor outcomes in patients with advanced chronic systolic HF. However, lack of significant independent associations suggests that older age per se has no intrinsic effect on outcomes in these patients.

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