PLASMA NOR-EPINEPHRINE LEVELS AND MORTALITY IN PATIENTS WITH ADVANCED CHRONIC SYSTOLIC HEART FAILURE: INSIGHTS FROM THE BEST STUDY

ACC Poster Contributions
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Background: Plasma nor-epinephrine (PNE) is associated with poor outcomes. However, whether this is an independent effect or mediated by other confounding covariates is unclear.

Methods: In the Beta-Blocker Evaluation of Survival Trial (BEST), of the 2707 patients with NYHA class III-IV symptoms and LVEF ≤35%, data on PNE was available on 2126 patients. Patients were categorized into tertiles based on their baseline PNE levels: lowest (<346 pg/ml; n=706), middle (346-552 pg/ml; n=709), and highest (PNE >552 pg/ml; n=711). Cox regression models were used to estimate effects of the middle and highest PNE tertiles (compared with the lowest tertile) on outcomes during over 4 years of follow-up.

Results: Unadjusted rates for all-cause mortality in patients with PNE tertiles I, II, and III were 24%, 29% and 39% respectively. Compared to lowest PNE tertile, unadjusted hazard ratios (HR) and 95% confidence intervals (CI) for all-cause mortality for those with the middle and highest PNE tertiles were 1.28 (1.05-1.57; P=0.017) and 2.04 (1.69-2.47; P=<0.0001) respectively. However, after adjustment for major baseline confounders, only the highest PNE tertile had an independent association with all-cause mortality (adjusted HR, 1.28; 95% CI, 1.04-1.57; P=0.018)

Conclusion: Among advanced chronic systolic HF patients, baseline PNE predicted mortality. However, only PNE >552 pg/ml had an independent association with mortality.