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Heart Failure

IS THERE A MORTALITY BENEFIT WITH RENIN-ANGIOTENSIN SYSTEM (RAS) INHIBITION IN AFRICAN AMERICANS (AA) WITH HEART FAILURE WITH PRESERVED EJECTION FRACTION (HFPEF)?

ACC Moderated Poster Contributions
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Background: RAS inhibitors (RASIs/ACE inhibitors & ARBs) have reduced mortality in SHF (EF<45%), but not in HFPEF (EF>45%) in randomized controlled trials. Since, AAs are underrepresented in these trials, whether these results are applicable to AAs with HFPEF is uncertain

Methods: All cause mortality was assessed in an AA HF quality improvement registry categorized in to SHF+RASI +ve, SHF+RASI naive, HFPEF+RASI +ve, HFPEF+RASI naive based on therapy (+ve) or naivety of RASIs. Survival analysis performed using Kaplan-Meier and multivariate Cox regression models adjusting for age, gender, NYHA class, EF, DM, HTN, hypercholesterolemia, smoking, angina, beta blockers, ACEIs, ARBs, statins, aldactone and bidil therapy

Results: In 594 AAs with HF 303 (51%) in SHF and 226 (38%) in HFPEF were on therapy with RASIs. In median follow up of 4.5 yrs; death occurred in 105 (53.0%) SHF and 67(42.1%) HFPEF. Elderly age, male gender and RASI naivety were significant predictors of mortality at multivariate level. RASIs therapy independently predicted survival, across the cohort (adj HR=0.6; 95%CI: 0.40-0.88; p=0.01). Further examination between SHF and HFPEF showed RASIs therapy in HFPEF is associated with higher survival than in SHF (adj HR=0.62; 95%CI: 0.45-0.85; p=0.003)

Conclusions: In AA patients with HF, RAS inhibition is associated with greater survival in HFPEF compared to SHF. These data suggest possible racial differences in response to therapy with RAS inhibitors in HFPEF. Further investigations are required.