END SYSTOLIC VOLUME AND SCAR BURDEN PREDICT GENDER DIFFERENCES IN SURVIVAL IN PATIENTS WITH SEVERE ISCHEMIC CARDIOMYOPATHY UNDERGOING REVASCULARIZATION

ACC Moderated Poster Contributions
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Background: Previous studies have demonstrated gender-based differences in survival in severe ischemic cardiomyopathy (ICM). We sought the roles of clinical status, left ventricular (LV) remodeling and scar burden in determining outcomes relative to gender in pts undergoing coronary bypass grafting (CABG) for ICM.

Methods: Of 450 pts with ICM (LV dysfunction with >70% stenosis in ≥1 epicardial coronary artery) underwent delayed hyperenhancement-MRI (Avanto, Siemens) between 2003-2007, 245 (78% men, median age 63 years) underwent subsequent CABG. Patients were followed for up to 9 years (mean 5.8 years) for all-cause mortality. Cox proportional hazards models were used to risk-adjust comparisons.

Results: Median LVEF was 23%, median ESVi 115ml, and median scar extent was 30%. 186 deaths [128 of 339 men (38%) and 58 of 111 women (52%)] occurred. Amongst the 245 patients that undwent CABG, 90 deaths occurred [63 of 190 men (33%), and 27 of 55 women (49%)]. Gender (χ² 11.98, p = 0.0018) was an independent predictor of survival, independent of age, mitral valve procedures, indexed ESV (ESVi) (χ² 16.43, p=0.006) and scar % (χ² 18.33, p <0.001). Higher levels of ESVi in the setting of higher scar % were associated with significantly worse outcome in women who underwent CABG compared to men. Conversely, greater levels of ESVi and scar % were associated with improved post-CABG survival in men (Fig 1).

Conclusions: In severe ICM, ESVi and scar burden predict differential survival in men versus women following CABG.