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## GENDER DIFFERENCES IN LONG TERM SURVIVAL AFTER TRANS-CATHETER AORTIC VALVE REPLACEMENT IN PATIENTS WITH SEVERE AORTIC STENOSIS

Poster Contributions

Poster Hall B1

Sunday, March 15, 2015, 3:45 p.m.-4:30 p.m.

Session Title: Pharmacotherapy and Complex Coronary Interventions

Abstract Category: 30. TCT@ACC-i2: Aortic Valve Disease

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Authors: *Atish P. Mathur, Ahmed M. Abdel-Razek, Yulanka Castro Dominguez, Thomas Cocke, Pranaychandra Vaidya, Paul Andrews, Jock N. McCullough, Elie Elmann, Gabriele Di Luozzo, Tammy Russo, Joseph Parrillo, Hackensack University Medical Center, Hackensack, NJ, USA*

**Background:** Previous studies have demonstrated improved short term survival in high risk patients with symptomatic aortic stenosis (AS) undergoing trans-catheter aortic valve replacement (TAVR) when compared to surgical aortic valve replacement (SAVR). However, gender specific outcomes in these patients are not clearly defined. This study sought to examine these outcomes after SAVR or TAVR.

**Methods:** We retrospectively evaluated 200 consecutive patients undergoing aortic valve replacement at our institution between 2002 and 2012. In all, 100 patients undergoing TAVR were matched on their propensity scores with 100 patients undergoing SAVR. Baseline characteristics, 30 day major adverse cardiovascular events (MACE), defined as composite end point of stroke, myocardial infarction, cardiovascular death or re-hospitalization, and 1 year all-cause mortality were compared among males and females.

**Results:** All patients undergoing TAVR had significantly lower mortality rate at 12 month when compared to those undergoing SAVR (15% vs. 29%, HR 0.47, 95% confidence interval (CI): 0.26 to 0.84,  $p = 0.01$ ). When compared to male patients, the female patients were predominantly older ( $82 \pm 6$  vs  $79 \pm 8$  years), had lower prevalence of prior coronary artery bypass surgery (11% vs. 42%), peripheral artery disease (19% vs. 31%) and lower pre-operative creatinine levels (1.2 vs. 1.5 mg/dl). STS score was similar between both genders (10.7 and 10.8). Among women, the 30-day MACE events and 1 year all-cause mortality was significantly lower in the TAVR group (30% vs 67%,  $p < 0.001$  and 12% vs. 31%,  $p = 0.002$ , respectively). Among men, although the 30 day MACE event was significantly lower in TAVR group (12% vs. 31%,  $p = 0.01$ ), there was no significant survival benefit at 1 year (18% vs. 26%,  $p = 0.19$ ).

**Conclusion:** In this retrospective propensity score matched analysis, patients undergoing TAVR has persistently improved survival at 1 year when compared to those treated with SAVR. Gender specific analysis showed that female, but not male, patients undergoing TAVR appeared to derive the greatest benefit. More large scale randomized studies are needed to further evaluate this gender difference.