FIRST MIDDLE EAST TRANSCATHETER AORTIC VALVE IMPLANTATION (TAVI) EXPERIENCE: IMMEDIATE AND 18 MONTHS FOLLOW-UP.

ACC Poster Contributions
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Background: Transcatheter Aortic Valve Implantation (TAVI) has been recently introduced as a therapeutic alternative for high-risk patients with severe symptomatic aortic valve stenosis (AS) and has been shown to reduce mortality and clinical events in the recent PARTNER Trial. However, there is insufficient data on similar outcomes in the Middle East.

Objectives: To evaluate the immediate and intermediate results of Transfemoral (TF) and Transapical (TA) TAVI done in Saudi Arabia with 18 months F/U.

Methods: From April 2009 till October 2010, 42 consecutive high risk patients with severe symptomatic AS were enrolled for TAVI using Edwards Sapien valve. The mean age was 80.9 ± 8 years, Logistic Euroscore 38 ± 13, 18 female (42.9%), mean EF 47.9 ± 7 %, PAP 49.6 ± 10 mmHg, 35.7% COPD, 42.9% renal impairment, 19% previous CVA, 60% PVD, 16.7% Porcelain aorta, 57.1% CAD or previous PCI (21.4% had pre TAVI stenting), and 26.2% had previous CABG. The mean AV area was 0.61 ± 0.4 Cm², peak aortic gradient (AVGp) 75.7 ± 11 mmHg, and AV annulus size 22.05 ± 0.17 mm.

Results: Transapical technique was performed in 27 patients (64.3%) and TF in 15 patients (35.7%). All valves (17 size 26 mm and 25 size 23 mm) were implanted successfully. The mean Hospital stay was 8.5 ± 4 days. The overall Hospital Mortality (1 month mortality) was 11.9% and 18 months survival was 88.1%. Grade- I Paravalvular AR was present in 42.8%, grade-II in 7.1% and none with grade III or VI. The postprocedure AVGp was 10.9 ± 4 mmHg (p<0.0001), EF 52.2 ± 4 % (p<0.012), PAP 37.8 ± 6 mmHg (p<0.033). Postoperative Complications included; Cardiac tamponade in 2 patients (4.8%), apical tear in 1 patient (2.4%), exploration for bleeding in 3 patients (7.1%), coronary occlusion in 1 patient (2.4%), CVA in 1 patient (2.4%), Dialysis in 5 patients (11.9%), vascular complications in 2 patient (4.8%), wound infection in 2 patients (4.8%), and one PPM insertion (2.4%). At up to 18 months F/U there was no significant change in AV gradient or AR and there was improvement in MR grade (all < II) and NYHA class. Table

Conclusion: TAVI is a feasible technique for high risk AS with high success rate and acceptable complications. Long term results and Survival benefits still to be determined.