Abstract: **P311**

**Different patterns of cardiac rehabilitation program results among surgical aortic valve replacement (AVR) and transcatheter aortic valve implantation (TAVI) patients**

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Aim – Comparison of cardiac rehabilitation (CR) program results in post TAVI and AVR patients.

Background - Since TAVI was introduced it has become an established therapy for AS. While AVR remains the gold standard therapy, TAVI has been identified as an alternative in elderly, inoperable, higher surgical risk patients, and as a treatment option in bioprosthetic valve failure patients who face repeat surgery with increased risk. TAVI bears less leaks, strokes and bleeding, however up to 50% of patients have increased blood pressure after procedure.

Methods – 12 TAVI, age – 81.5 +/- 5.38 & 35 AVR patients, age – 66.2 +/- 7.3 who joined aerobic exercise based CR program, 1.1.2016 – 1.2. 2018 were studied retrospectively. Follow up - 9 months. TAVI group - 4 with Evolute self expandable & 8 Sapien balloon expandable valves, one had valve in valve procedure. AVR group - 22 bioprosthetics, and 13 mechanical valves, 5 (14.3%) had bicuspid valve pre-op. Mean gradient on admission – 13.1 +/- 1.8 in AVR & 8.3 +/- 1.2sd in TAVI, p<0.05. Age, gender, CSHA clinical frailty scale, risk factors prevalence, adherence time to program, and major adverse events were compared.

Results: Age was significantly higher in TAVI group as well as hypertension and hyperlipemia, 81.5 ys +/- 5.38 vs 66.2ys +/- 7.3, 91.7% vs 65.7%, and 66.7% vs 40% respectively, p<0.05, while diabetes and CAD were more frequent in AVR group, p<0.05. AVR patients joined earlier CR, 28 +/- 3 days than TAVI patients, 60.5 +/- 7 days following procedure, p<0.01. Program adherence time was longer in TAVI group, 99 days +/- 6.5 vs 37.3 days +/- 4.1, p<0.01. > mild paravalvar leak in 1 TAVI and 3 AVR patients, none needing intervention, p= ns. Hospitalizations = 1 in TAVI group (CHF) and 6 in AVR, P<0.05, 2-pacemaker implantations = 2-CHF, 1-SBE & 1 - TIA. No unexpected fall was noticed during exercise sessions. Only 1 TAVI patient had an hypertensive rebound requiring treatment adjustment. CSHA scale showed similar improvement results in both groups.

Conclusions: TAVI patients were more motivated than the younger AVR patients, adhere longer time to CR program which resulted feasible and safe for this old and relatively frail cohort.