

CONCLUSION With the SAPIEN 3 valve, we found a favourable 30-day outcome after TF TAVR that was largely independent of the type of peri-interventional anaesthesia management.

CATEGORIES STRUCTURAL: Valvular Disease: Aortic

TCT-726

Aortic Valve Replacement in Patients With Prior Mediastinal Radiation: Transcatheter Vs Surgical Approach



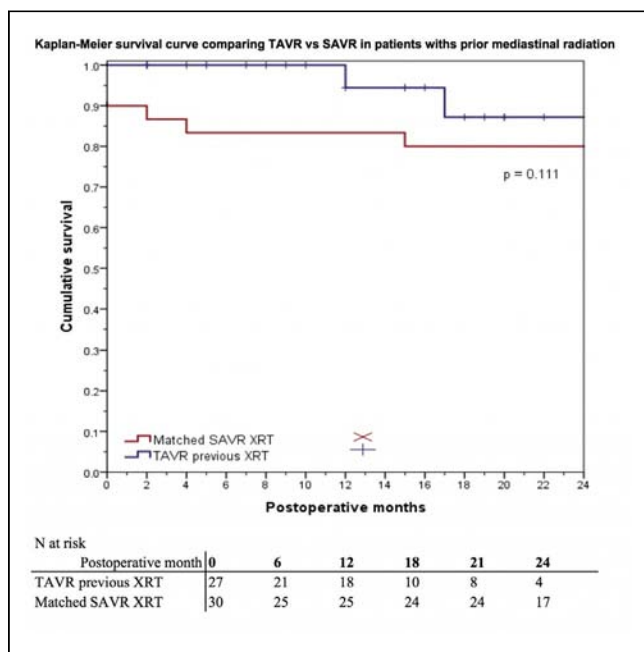
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BACKGROUND Mediastinal radiation therapy(MRT) is a risk factor for adverse outcomes after surgical aortic valve replacement(SAVR). Transcatheter aortic valve replacement(TAVR) provides an alternative approach. However, data comparing TAVR to SAVR in patients with prior MRT are lacking.

METHODS We identified patients with prior MRT who had undergone isolated AVR between January, 2002(2012 for TAVR) and May, 2016 at our institution. Concomitant CABG was included, yielding 163 patients(SAVR=133, TAVR=30). Operative mortality and post-operative complications were compared between 30 pairs of STS risk score matched SAVR and TAVR patients.

RESULTS Mean age was 78.1±8yrs vs. 70±9yrs for TAVR and SAVR, respectively(p=0.24). Among TAVR patients, 24/30(80%) were female vs. 20/30(66.7%) in SAVR, p=0.38. Mean STS risk score was 5.88±5% for TAVR and 5.91±3% for SAVR(p=0.94). 7/30 (23.3%) of TAVR and 5/30(16.7%) of SAVR patients had undergone prior cardiac surgery (p=0.57), and 48% of SAVR patients had concomitant CABG. TAVR was performed via a transfemoral approach in 24(80%), transaortic in 4(13.3%) and transapical in 2(6.7%). 30-day operative mortality was zero for TAVR and 3/30(10%) for SAVR (p=0.24). Post-operative stroke rate was 3.3%(1/30) in both groups(p=1.0). There was a higher incidence of new onset atrial fibrillation with SAVR(0% vs. 23.3%, p<0.011). TAVR had a shorter median ICU(21hrs vs. 58hrs, p<0.001) and hospital stay(4d vs. 12d, p<0.001). 1-year survival was 94.3% for TAVR vs 83.3% for SAVR(p=0.11) **Figure**.



CONCLUSION Transcatheter aortic valve replacement appears to be an excellent alternative approach for valve replacement in patients with prior mediastinal radiation. It may afford lower post-operative morbidity and shorter hospital stay in this high risk population.

CATEGORIES STRUCTURAL: Valvular Disease: Aortic

TCT-727

The association between preoperative frailty status and early postoperative mortality and morbidity in high risk TAVR patients: Refining the minimal frailty criteria



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BACKGROUND Transcatheter aortic valve replacement (TAVR) has become a more utilized procedure to perform on patients deemed too frail to handle the demands of surgical aortic valve replacement (SAVR). Assessing frailty in TAVR candidates remains challenging to objectively quantify without a standardized approach or measure. TAVR registry requires baseline and 30 day postoperative assessment using the Kansas City Cardiomyopathy Questionnaire-12 (KCCQ-12), however this is a “general health” tool. One potential as a gold standard is using the five domains of frailty based on Fried’s frailty phenotype (Fried scale), of which a minimum of three domains met deem someone as frail. The aim of this research was to 1)statistically measure which outcome tool most accurately depicted frailty in patients with severe aortic stenosis who underwent TAVR and 2) determine which frailty composite of Fried’s three domains best predicts procedural complications in the TAVR population.

METHODS Prior to TAVR, all patients underwent a frailty assessment whereby physical activity and exhaustion scales were administered as well as 5-m gait speed, weight loss amount and grip strength were obtained to derive baseline Fried frailty scores (out of 5) as well as the KCCQ-12 (for KCCQ Summary Score). The cohort was dichotomized according to frail/not frail with ≥ 3 criteria met as frail for Fried scale and <60 deemed frail for KCCQ-12 Summary Score, then compared to procedural complications and 30-day mortality. Sensitivity, Specificity and Area under Curve (AUC) were calculated for the two outcome tools and regression models calculated for every 3-domain frailty composite models.

RESULTS Baseline frailty was assessed in 83 patients who underwent TAVR (mean age 82.3 years, males 52%, STS 9.2%, KCCQ Summary Score 34.11, Fried scale 3.6/5). There were 5 deaths (6%) and 25 procedural complications (36% total sample), based on prospective data from 2013-2015. KCCQ deemed 77/83 frail and Fried Scale deemed 72/83 frail using stated criteria and based on calculated Sensitivity and Specificity, AUC for KCCQ was 0.5324 versus Fried scale with AUC=0.6604. Next to grip strength, physical activity (measured by the Late-Life Function and Disability Index) was the strongest single-frailty predictor (AUC= 0.5704) and when both were combined with gait speed, this yielded the highest sensitivity/specificity for a 3-domain frailty composite (AUC=0.5962).

CONCLUSION Fried scale should be utilized for assessing frailty in TAVR.

CATEGORIES STRUCTURAL: Valvular Disease: Aortic

TCT-728

Impact Of Diabetes Mellitus On Outcomes Of Transcatheter Aortic Valve Replacement: A Meta-analysis



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BACKGROUND Diabetes mellitus (DM) is associated with adverse outcomes after surgical aortic valve replacement. However, data on