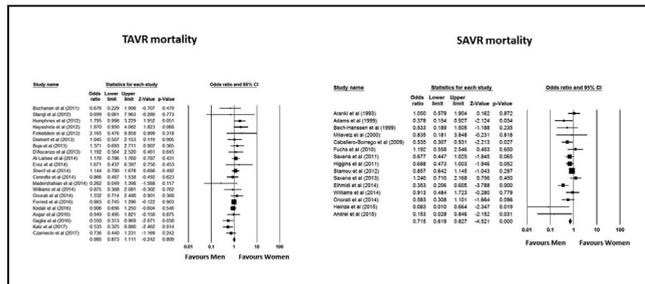


SAVR, and 2 involved both TAVR and SAVR. Rates of 30-day all-cause mortality following TAVR was noted to be similar in men and women [odds ratio (OR) 0.99, 95% confidence interval (CI), 0.87 to 1.11]. Men had lower rates of 30-day all-cause mortality following SAVR compared to women (OR 0.72, 95% CI, 0.62 to 0.83) (Figure).

CONCLUSIONS Female gender is associated with higher rates of mortality following SAVR. No significant differences in mortality were noted in men versus women following TAVR.



CRT-700.36

Dual Antiplatelet Therapy Versus Single Antiplatelet Therapy After Transcatheter Valve Replacement: Meta-Analysis

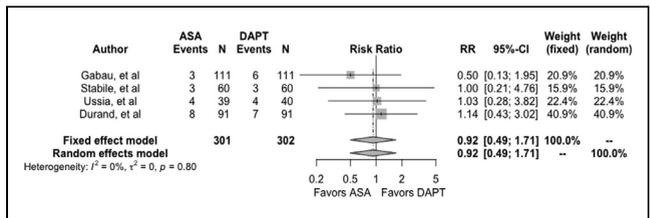
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BACKGROUND The current American College of Cardiology/American Heart Association (ACC/AHA) recommends empirical therapy with dual antiplatelet (DAPT) regimen of ASA and clopidogrel for six months after aortic valve replacement (TAVR). This recommendation is based on the expert consensus rather than clear clinical evidence. Given the lack of clear consensus on treatment strategy for ischemic events prevention following TAVR, we performed a meta-analysis of studies comparing aspirin based mono-antiplatelet therapy (MAPT) with DAPT in patients who have undergone TAVR.

METHODS We performed a systematic review and meta-analysis from randomized clinical trials (RCTs) and prospective studies that tested DAPT vs. MAPT for all-cause mortality and major bleeding. The primary efficacy outcomes were 30-days mortality and stroke. The primary safety outcomes were major bleeding and major vascular complications. Secondary safety outcomes included minor bleeding and minor vascular complications.

RESULTS The meta-analysis included 603 patients with 301 receiving MAPT and 302 receiving DAPT. The use of MAPT was associated with similar mortality (MAPT 5.9% vs. the DAPT 6.6%; RR= 0.92; = 95% CI 0.49 to 1.71; P= 0.68) or in major strokes (1.3% vs. 1.3%; RR 1.04; 95% CI 0.27 to 4.04; P=0.81). MAPT was associated with significantly less risk of major bleeding (4.9% vs. 14.5%; RR 0.37; 95% CI 0.20 to 0.70; P<0.01). However there was no difference in major vascular complication (4.2% vs. 8.9%; RR 0.52; 95% CI 0.23 to 1.18; P=0.17), minor bleeding (4.2% vs. 3.6%; RR 1.16; 95% CI 0.43 to 3.10; P= 0.85) or minor vascular complication (4.2% vs. 7.3%; RR 0.58; 95% CI 0.25 to 1.34; P=0.14).

CONCLUSION MAPT use post TAVR is associated with lower risk of major bleeding comparing to DAPT with no significant difference in mortality, stroke or vascular complications risk.



CRT-700.35

Slope of Left Ventricular Filling as an Index of Valvular and Paravalvular Regurgitation in Native and Prosthetic Aortic Valves

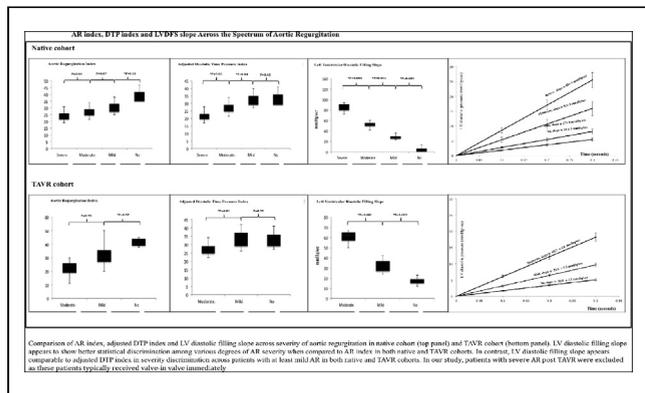
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BACKGROUND Precise quantification of paravalvular aortic regurgitation (PAR) is challenging. Aortic regurgitation index (AR index) has been validated in transcatheter aortic valve replacement (TAVR) cohorts; however, accuracy is limited by heart rate dependency. Diastolic pressure time (DPT) index has been suggested as an alternative and also predicts mortality after TAVR. We chose to evaluate the left ventricular diastolic filling slope (LVDFS) as a surrogate of AR, and suggest it is less heart rate dependent than the AR index and comparable to DPT index.

METHODS For initial validation, we compared the LVDFS between 3 cohorts of patients with native aortic valves referred for hemodynamic assessment: (1) Patients without AR; (2) moderate AR; and (3) severe AR. We then retrospectively identified TAVR patients between January 2012-2017, and compared LVDFS to echocardiographic PAR.

RESULTS In both TAVR patients and patients those with native aortic valve disease, the LVDFS showed a stepwise increase with increasing echocardiographic AR severity. When compared to AR or DPT indices, LVDFS better discriminated the degree of AR in native valves and post-TAVR when AR is primarily paravalvular. Additionally, the slope did not considerably change across a spectrum of heart rates in both native or post-TAVR populations.

CONCLUSION The LVDFS is a simple, reproducible metric that can be operationalized in patients undergoing TAVR, as well as those with native valve regurgitation. Additional studies are necessary to determine the relationship between LVDFS and post-TAVR outcomes.



CRT-700.37

Accurate Model to Predict Coronary Obstruction during TAVR

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BACKGROUND Coronary Obstruction (CO) occurrence during TAVR often proves fatal. Existing CO predictive parameters based on coronary height (h) and Sinus of Valsalva diameter (SOVd)^(1,2) lack 3D geometric information on the aortic root and calcific lesions, and are prone to error. In this study we aim to improve predictive power by incorporating leaflet length (L), coronary artery diameter (d) and calcium nodule size (t).

METHODS The study population includes 600 patients who underwent TAVR at The Ohio State University Wexner Medical Center January 2014 to August 2017. To enrich the population in patients at higher risk of CO, patients with h > 14 mm and SOVd > 32 mm were excluded from the screening process, resulting in total 23 patients, 15 women [65.2%], aged 80 ± [8] years (mean ± [SD]). The standard variables (h and SOVd) along with L, d, and t were measured for all