

71866 | Outcomes of Transcatheter Aortic Valve Replacement in Patients With and Without Rheumatoid Arthritis: A Propensity Score-Matched Analysis

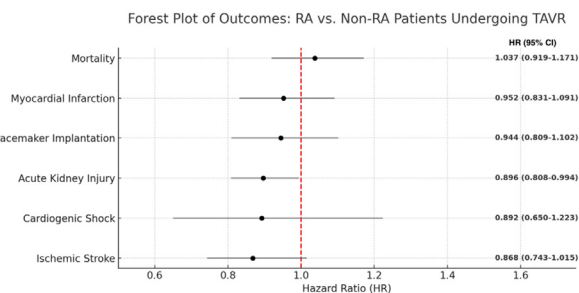


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Background: Rheumatoid arthritis (RA) conveys an elevated risk of cardiac valvular disease due to chronic systemic inflammation. Patients with RA undergoing transcatheter aortic valve replacement (TAVR) represent a clinically distinct population. Despite the broad adoption of TAVR in this population, data comparing outcomes between RA and non-RA patients are lacking. We evaluated the safety and effectiveness of TAVR in RA patients compared to matched non-RA patients.

Methods: Using the TriNetX Registry, we identified RA patients undergoing TAVR (n=2569) and matched them 1:1 to non-RA TAVR patients (n=2569) using propensity score matching. The mean follow-up period was 2.3 years for RA patients and 2.26 years for non-RA patients. Outcomes assessed included mortality, permanent pacemaker (PPM) implantation, ischemic stroke, acute kidney injury (AKI), myocardial infarction (MI), and cardiogenic shock.

Results: In the propensity-matched cohorts, hazard ratios (RA vs. non-RA) were: mortality 1.04 (95% confidence interval [CI] 0.92–1.17), PPM implantation 0.94 (95% CI 0.81–1.10), ischemic stroke 0.87 (95% CI 0.74–1.02), AKI 0.90 (95% CI 0.81–0.99), MI 0.95 (95% CI 0.83–1.09), and cardiogenic shock 0.89 (0.65–1.22). No significant differences in long-term complications were observed. Risk estimates are presented in Figure 1.



Conclusion: TAVR is equally safe and effective in patients with and without RA, with no significant differences in long-term outcomes. These findings suggest that RA should not be considered a barrier to TAVR and support TAVR as an appropriate therapy in RA patients with severe aortic stenosis.

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71868 | Short- and Midterm Outcomes Following TAVR With Two Intra-Annular Transcatheter Aortic Valves



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Background: Transcatheter aortic valves (TAVs) can be either balloon-expandable (BE) or self-expanding (SE), and the leaflet position can be either or intra- or supra-annular. We compared the short- and midterm outcomes following transcatheter aortic valve replacement (TAVR) with two types of intra-annular transcatheter aortic valves – the SE Portico/Navitor TAV or the BE Myval TAV.

Methods: This was a single-center all-comer study of patients, who underwent TAVR with the intra-annular SE Portico/Navitor TAV or the intra-annular BE Myval TAV between October 2019 and October 2023. Patients were compared with respect to 30-day and 1-year safety and efficacy outcomes overall and after propensity score matching.

Results: Overall, 97 patients received the Myval TAV and 47 patients the Portico/Navitor TAV. Overall, the two valves were associated with comparable 30-day (Myval cohort 2.1% vs. Portico/Navitor cohort 2.2%, p=1.000) and 1-year mortality (Myval cohort 5.2% vs. Portico/Navitor cohort 7.0%, p=0.703). Additionally, there were no significant differences in the incidence of moderate or severe paravalvular leak (PVL) (moderate PVL: Myval cohort 1.1% vs. Portico/Navitor cohort 6.7%, no cases of severe PVL in either group, p=0.175) or in the need for new permanent pacemaker implantation (Myval cohort 10.5% vs. Portico/Navitor cohort 11.6%, p=1.000). There were also no significant differences in the incidence of access site, neurological or cardiac complications, and major or life-threatening bleeding. Overall, we observed higher post-procedural mean trans-prosthetic gradients in patients following TAVR with the BE valve (Myval cohort 11.1 ± 5.2 mmHg vs. Portico/Navitor cohort 8.5 ± 4.5 mmHg, p=0.010), but there were no significant differences after propensity-score matching (Myval cohort 8.9 ± 2.5 mmHg vs. Portico/Navitor cohort 8.1 ± 4.7 mmHg, p=0.395).

Conclusion: TAVR with the intra-annular SE Portico/Navitor TAV and the latest-generation intra-annular BE Myval TAV is associated with comparable short- and mid-term outcomes.

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71871 | Impact of Spontaneous Echo Contrast on Clinical Outcomes After Left Atrial Appendage Occlusion



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Background: Spontaneous echo contrast (SEC) with atrial fibrillation (AF) is known to increase stroke risk. However, the effect of SEC grades on outcomes after left atrial appendage occlusion (LAAO) remains unclear. This study aimed to evaluate the impact of SEC grades on clinical outcomes following LAAO.

Methods: We analyzed 1,276 consecutive patients undergoing LAAO and classified them into SEC 0+, SEC 1/2+, and SEC 3/4+ groups based on preprocedural transesophageal echocardiography. Clinical outcomes were compared among the groups.

Results: There were 595 (46.6%), 509 (39.9%), and 172 (13.5%) patients in the SEC 0+, SEC 1/2+, and SEC 3/4+ groups, respectively. The SEC 3/4+ group (11.5%) had a higher ischemic stroke/transient ischemic attack/systemic embolism incidence than the SEC 0+ (4.4%, p=0.009) and 1/2+ groups (5.4%, p=0.047), but SEC grade was not a significant predictor in multivariate analysis. Compared with the SEC 0+ group (2.8%), both the SEC 1/2+ (8.4%, p<0.001) and 3/4+ groups (12.4%, p<0.001) were associated with higher risk of device-related thrombus (DRT). When SEC grade and AF type were combined to assess, SEC 3/4+ with non-paroxysmal AF was associated with both thromboembolic events (adjusted hazard ratio [HR], 2.52; 95% confidence