Valvular Heart Disease

INCIDENCE OF STROKE IN PATIENTS UNDERGOING TRANSCATHETER AORTIC VALVE REPLACEMENT USING EDWARDS SAPIEN VALVE FOR CRITICAL AORTIC STENOSIS. META-ANALYSIS COMPARING TRANSFEMORAL VERSUS TRANSAPICAL APPROACH

Poster Contributions
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Background: Transcatheter aortic valve replacement (TAVR) is associated with a higher risk of stroke as compared to surgical aortic valve replacement. The data on the difference in the incidence of stroke between the transfemoral (TF) vs transapical (TA) approaches is limited to individual studies.

Methods: We performed a comprehensive electronic database search for patients undergoing TAVR from Jan 2009 to July 2012. Only studies comparing TF vs TA approaches using the Edwards SAPIEN aortic valves were included. The primary endpoint was occurrence of any stroke (major or minor) within 30 days of the procedure.

Results: A total of 9 studies including 3,007 patients (TF= 1,639; TA= 1,368) met our inclusion criteria. The cumulative incidence of 30-day stroke post TAVR was non-significantly different between the two approaches (TF=3.15% vs TA=3.17%, p=NS). The pooled relative risk of stroke for these two approaches was 0.893 (95% CI 0.501 to 1.589).

Conclusions: The transapical and transfemoral approaches are associated with similar risk of 30 day peri-procedural stroke. Our meta-analysis suggests that manipulation of aorta may not be the prime cause of peri-procedural stroke.

![Graph showing incidence of 30 day stroke in TF vs TA](image-url)