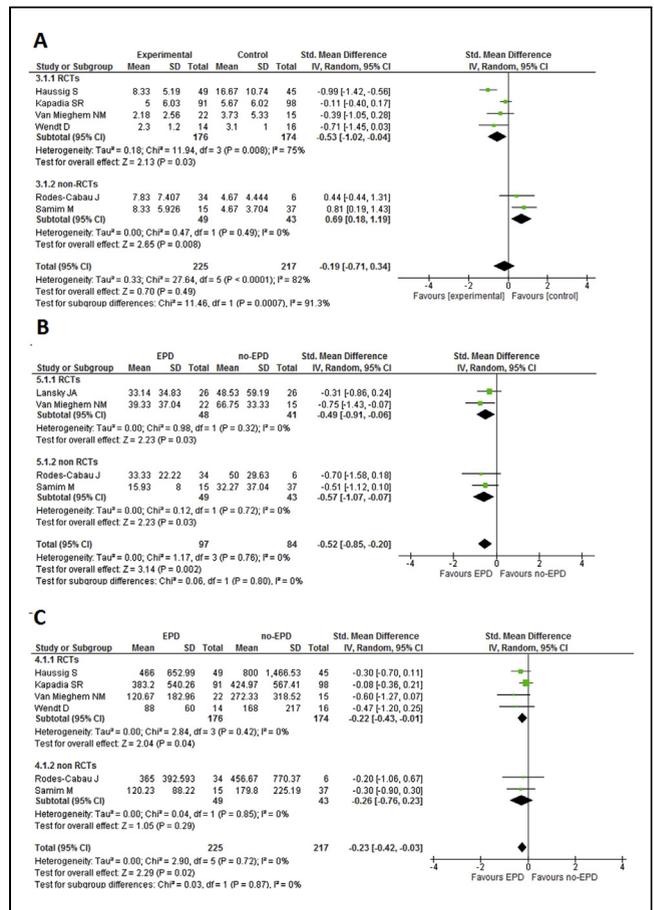
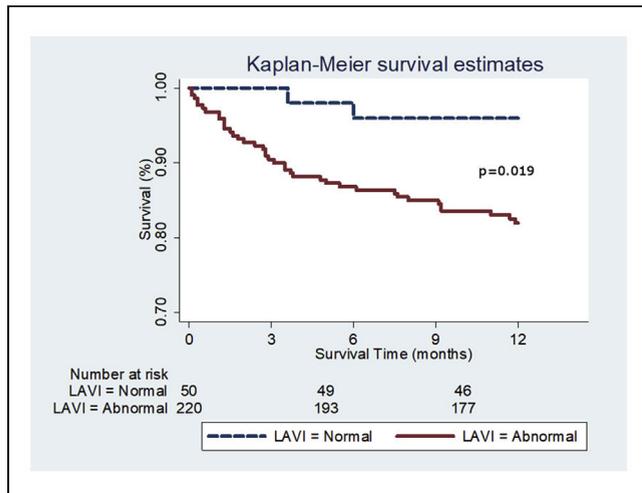


proportional hazard regression models were used to assess the associations between LAVI and all-cause mortality.

RESULTS There was a significant correlation between LAVI and all-cause mortality at 1 year. After covariate adjustment, Cox regression analysis showed LAVI was significantly associated with mortality at one year (hazard ratio, 3.66; 95% confidence interval 1.1-11.78, $p=0.029$). There was a significant difference in survival times between patients with a normal LAVI versus those with an abnormal LAVI (log rank test $p=0.0195$). The Kaplan-Meier survival probability estimates at 12 months were 0.80 for enlarged LAVI and 0.92 for normal LAVI.

CONCLUSION Indexed left atrial volume is a strong predictor of outcomes in patients with severe symptomatic aortic valve stenosis undergoing TAVR.



CRT-700.30
Cerebral Protection During Transcatheter Aortic Valve Implantation: An Updated Systematic Review and Meta-analysis

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BACKGROUND AND PURPOSE The use of embolic protection devices (EPD) may theoretically reduce the occurrence of cerebral embolic lesions during transcatheter aortic valve implantation (TAVI). Available evidence from single studies is quite inconclusive. The aim of the present meta-analysis was to assess the safety and efficacy profile of current EPD.

METHODS EMBASE, PubMed, Web of Science Core Collection, and the Cochrane Library were searched up to October 2017 for studies that evaluated patients undergoing TAVI with or without EPD. Endpoints of interest were 30-day mortality, 30-day stroke, the total number of new lesions, the ischemic volume per lesion, and the total volume of lesions.

RESULTS Seven studies involving 725 patients were included. The EPD delivery success rate was reported in all studies and was achieved in 94.5% of patients. The use of EPD was not associated with significant differences in terms of 30-day mortality [OR 0.57 (0.19, 1.66), $p=0.3$] or stroke [OR 0.67 (0.35-1.29), $p=0.23$]. Moreover, no differences were detected with respect to the number of new lesions: [standardized mean difference -0.19 ; (-0.71 to 0.34); $P=0.49$]. The use of EPD was associated with a significantly smaller ischemic volume per lesion [standardized mean difference, -0.52 ; (-0.85 to -0.20); $P=0.002$] and smaller total volume of lesions [standardized mean difference, -0.23 (-0.42 to -0.03), $P=0.02$].

CONCLUSIONS The use of EPD is not associated with a reduced rate of stroke, mortality and new ischemic cerebral lesions. The use of EPD during TAVI is associated with smaller volume of ischemic lesions and smaller total volume of ischemic lesions.

CRT-700.31
A Meta-analysis of Reduced Leaflet Motion: Relationship to Cerebrovascular Events and Valve Degeneration

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BACKGROUND Reduced Leaflet motion (RLM) of transcatheter aortic valves (TAV) is observed in up to 4% of cases, with an incidence that differs based on prosthesis type and size. This phenomenon likely represents subclinical leaflet thrombosis. Herein we sought to analyze the existing reported literature to assess whether or not RLM is associated with subsequent valve degeneration or cerebrovascular events.

METHODS AND RESULTS We searched PubMed, and EMBASE (2008-2017) to identify relevant studies. Studies with less than 1-year follow-up, studies not evaluating RLM, and studies not evaluating neurological events and/or structural valvular degeneration were excluded. Our co-primary endpoints were the incidence of cerebrovascular events (stroke and/or transient ischemic attacks) or structural valvular degeneration defined as moderate or greater regurgitation and/or a mean gradient ≥ 20 mm Hg. The literature search yielded 20 potential studies. Of these, 4 observational studies with a total population of 1,005 patients met our selection criteria. RLM was associated with an increased risk of stroke or TIA (adjusted OR 2.29, 95% CI 1.31 to 3.99, $p=0.004$). At 1 year, RLM was associated with an increased risk of structural valve degeneration (adjusted OR 4.62, 95% CI 2.23 to 9.57, $p=0.006$).

CONCLUSIONS In TAVR patients, presence of RLM is associated with increased risk of stroke or TIA as well as structural valvular degeneration. These findings support ongoing surveillance efforts and evaluation of pharmacotherapies to address RLM in effort to minimize subsequent clinical events.