

## Poster Presentations

# PP78 Real-World Trends And Medical Costs Of Stroke After Transcatheter Aortic Valve Implantation In Korea: A Nationwide, Population-Based Study

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**Introductions:** Transcatheter aortic valve implantation (TAVI) is an established alternative to surgical aortic valve replacement (SAVR) for patients with severe aortic stenosis. While procedural advancements have reduced the risk of stroke, stroke remains a serious complication of TAVI. To date, no study has investigated post-TAVI stroke costs in Korea. This study compared medical costs between patients with and without stroke after TAVI.

**Methods:** This was a retrospective study using claims data from the Korean Health Insurance Review and Assessment Service. Patients who underwent TAVI in certified hospitals between June 2015 and December 2020 were included; patients with SAVR prior to TAVI were excluded. Patients with postoperative stroke within 30 days of TAVI formed the “Stroke” group; remaining patients formed the “Non-Stroke” group. A generalized linear model with adjustment was used to compare mean medical costs in the first year after TAVI between the two groups. Exchange rate from xe.com (5 December 2022) was applied.

**Results:** In total, 3,046 TAVI patients were included for analysis (47% male, 85% aged  $\geq 75$  years). There were 61 (2%) patients in the “Stroke” group and 2,985 (98%) in the “Non-Stroke” group. Compared to the “Non-Stroke” group, the “Stroke” group had significantly higher adjusted mean total first-year medical costs (KRW 25,453,725 (95% confidence interval (CI):15,215,439-42,581,231) (USD 19,640 (95% CI:11,740-32,856)) vs. KRW 19,169,447 (95% CI:11,818,973-31,091,340) (USD 14,791 (95% CI:9,120-23,990)),  $p < 0.01$ ). Of these costs, 90 percent (“Stroke”) and 84 percent (“Non-Stroke”) were hospitalization-related (“Stroke” vs. “Non-Stroke”: KRW 6,847,975 (USD 5,284);  $p < 0.01$ ); the remainder were outpatient costs. Predictors of total medical costs were gender; hospital type; prior chronic obstructive pulmonary disease; prior diabetes; prior stroke; and postoperative stroke.

**Conclusions:** In Korea, TAVI patients with stroke had higher first-year medical costs compared to those without stroke, driven by hospitalization costs. Stroke poses an immediate, heavy economic burden on healthcare systems. Longer-term (e.g., caregiver, rehabilitation) costs were not captured in this analysis; future studies are needed to provide supplementary evidence on the total economic burden of stroke.