

# Surgical complications of transcatheter aortic valve implantation

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**Goal:** To present surgical complications in a cohort of patients treated with transcatheter aortic valve implantation (TAVI) in a single institution. Complications were reported according to Valve Academic Research Consortium-2 (VARC-2) criteria.

**Patients and Methods:** Since 11/2011 a total of 257 patients (139 male, 118 female) were treated with TAVI procedure. Average age was 78.6±7.3 years (30-91). Average Society of Thoracic Surgeons (STS) score was 5.4±3.8% (0.9-23.8). Self-expanding prosthesis was used in 98 and balloon expandable in 159 patients. Transfemoral approach was used in 243 (95%) of patients. Alternative access sites included transapical - 10, transaortic - 2 and subclavian - 2.

**Results:** Overall mortality was 2.3% (6/257). Most frequent complications requiring surgical intervention included peripheral access site complications 17/243 (7%). Bleeding was observed in 9/257 (3.5%) with cardiac tamponade in 6/257 patients – 1 requiring subxiphoid drainage. Valvular embolization was observed in 4/257 patients (2%) with 1 requiring surgical intervention. Conversion to open sternotomy was required in 3/257 (1%) – 2 annular rupture, 1 apical rupture with 2/3 patients expiring.

**Conclusion:** Complications of TAVI procedure that require surgical intervention are mostly related to vascular access site. Conversion to sternotomy is rare but yields a high mortality<sup>1</sup>.

## LITERATURE

1. Grube E, Sinning JM. The "Big Five" Complications After Transcatheter Aortic Valve Replacement: Do We Still Have to Be Afraid of Them? *JACC Cardiovasc Interv.* 2019 Feb 25;12(4):370-372. <https://doi.org/10.1016/j.jcin.2018.12.019>