

## P1817

## The effect of permanent pacemaker implantation following transcatheter aortic valve replacement upon survival

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**Background :** Transcatheter aortic valve replacement (TAVR) is often followed by conduction abnormalities, leading to a permanent pacemaker implantation (PPI). Data regarding the clinical impact of PPI following TAVR is yet to be established.

**Purpose:** To determine the effect of PPI after TAVR on long-term survival.

**Methods :** Patients with severe and symptomatic aortic stenosis [effective orifice area (EOA)≤1cm<sup>2</sup>] referred for TAVI at our institution were consecutively enrolled. Prospectively collected demographic, laboratory and echocardiographic data were retrospectively analyzed. Patients were stratified into two groups according to the need for PPI after TAVR and were followed up postoperatively with clinical and echocardiographic assessment. Primary clinical endpoint was all-cause mortality, as defined by the criteria proposed by the Valve Academic Research Consortium2.

**Results :** In total, 276 patients were included (male : 48.9%, mean age : 80 ± 7.5years) in our study . Of these, 107 (38.8%) underwent PPI simultaneously or shortly after TAVR. The median follow-up period was 26.6 [min. 0, max 116] months. In this period, all-cause mortality showed no significant difference between patients with and those without PPI after TAVR (log-rank p = 0.862). Subgroup analysis also showed no difference in survival between patients with low ejection fraction (<50%) and those with preserved (≥50%) receiving a permanent pacemaker after TAVR (log-rank p = 0.360). Including factors that were found to associate to PPI in univariate analysis (pre TAVR - ejection fraction, pulmonary artery systolic pressure and New York Heart Association functional class) in a multivariate model, pre TAVR pulmonary artery systolic pressure was found to be an independent predictor of peri-procedural PPI [Exp(B) : 0.974, 95% Confidence Interval : 0.953-0.995, B= - 0.027, p= 0.015].

**Conclusion :** PPI following TAVR was not associated with survival at 26 months of follow-up, independently from the pre TAVR ejection fraction.

Abstract P1817 Figure.

