Valvular Heart Diseases

OP-080

Long-term Outcome after TAVI and the Impact of New Left Bundle Branch Block or Need for Pacemaker Implantation on Survival

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Aim: Previous studies on outcome after transcatheter aortic valve implantation (TAVI) have focused on the first 30 days as well as first year after the procedure. Recently new left bundle branch block (LBBB) has been discussed to potentially have a negative impact on long-term outcome. This study aimed at definition of the long-term outcome up to 5 years after TAVI as well as the impact of new LBBB or need for pacemaker implantation on outcome.

Methods: 376 consecutive patients with symptomatic aortic stenosis were prospectively included. 205 patients were treated with a CoreValve prosthesis and 171 patients with an Edwards Sapien prosthesis. 167 patients developed a new LBBB or needed a new pacemaker, in 209 patients neither a new LBBB was observed nor a new pacemaker was required. Patients were followed-up on a yearly basis.

Results: Survival at 1 year follow-up was 81%, at two-year follow-up was 72%, at three year follow-up 67% and at four year follow-up 60%. NHYA functional class showed a marked improvement from 3.1±0.5 before TAVI to 1.8±0.7 at last follow-up. Impaired left ventricular function (ejection fraction <40%) before TAVI was associated with impaired survival at follow-up (p=0.012). There was no difference in long-term survival between patients with and without new LBBB or pacemaker implantation (see figure).

Conclusion: Survival more than one year after TAVI is good with a yearly mortality of less than 10%. A new LBBB or pacemaker implantation after TAVI has no negative impact on long-term survival.