Patients With Aortic Stenosis Referred For Transcatheter Aortic Valve Implantation: Treatment Decision, In-hospital Outcome And Determinants Of Survival

Background: To assess treatment decision and outcome in patients referred for Transcatheter Aortic Valve Implantation (TAVI) in addition to predictive factors of mortality after TAVI.

Methods: Three-centre prospective observational study including 358 patients. Endpoints were defined according to the Valve Academic Research Consortium.

Results: Of the 358 patients referred for TAVI, TAVI was performed in 235 patients (65%), surgical aortic valve replacement (AVR) in 24 (7%) and medical therapy (MT) in 99 (28%). Reasons to decline TAVI in favour of AVR/MT were patient’s preference (29%) and peripheral vascular disease (15%; Figure 1). The logistic EuroSCORE was significantly higher in patients who underwent TAVI and MT in comparison to those undergoing AVR (19 vs. 10%, p < 0.001). At 30 days, all-cause mortality and the combined safety endpoint was, respectively, 9 and 24% after TAVI and 8 and 25% after AVR. All-cause mortality was significantly lower in the TAVI group compared to the MT group at 6 months, 1 year and 2 years (12% vs. 22%, 21% vs. 33% and 31% vs. 55%, p < 0.01). There was no significant difference for major vascular complications (11 pts (9%) vs. 10 pts (8.2%), p = 0.14) comparing to men. Permanent pacemaker implantation was lower to women (4 pts(3.3%) vs. 1 pts (0.8%), p = 0.37) and 30-day mortality (5 pt (7.9%) vs. 2 pt (3.6%), p = 0.44) was not different.

Conclusions: In conclusion, women demonstrated better baseline clinical characteristics except for PASP and lower need for permanent pacemaker implantation. However, they did not differ from men as far as short term mortality is concerned.

Gender Differences in Patients with Severe Aortic Stenosis Undergoing Transcatheter Aortic Valve Implantation

Background: Transcatheter Aortic Valve Implantation (TAVI) has emerged as a new treatment option in high-risk patients with symptomatic severe aortic stenosis. The purpose of the present study was to determine differences in gender in terms of baseline characteristics and outcomes.

Methods: Four European countries which is treated with transcatheter aortic valve implantation (TAVI) when patients are inoperable or high risk. Nevertheless, female sex constitutes an unfavorable predictive factor for the outcome of transcatheter interventions for heart diseases. In this study we will evaluate baseline clinical characteristics, echocardiographic parameters as well as electrocardiographic changes before and after TAVI.

Results: Overall, data from 122 patients (pts) (80.42±5.6 years, AVA: 0.66±0.14 cm²) were analyzed. Out of them, 62 (pts) (52.5%) were female and 58 (pts) (47.5%) were male. When we compared both groups for baseline clinical characteristics, we found that women had smaller annulus (22.02±1.62 vs. 23.98±2.07, p<0.01) and aortic valve area (0.63±0.14 vs. 0.69±0.13, p=0.012) while AVAi did not differ among two sexes (0.37±0.07 vs. 0.36±0.08, p=0.61). Women had better baseline LVEF (52.16±9.37 vs. 47.69±13.01, p=0.03) but higher systolic pressure of pulmonary artery (47.35±13.96 vs. 37.92±10.95, p<0.01) and in higher percentage (45 pts (36.9%) vs. 25 pts (20.5%), p<0.01) comparing to men. Permanent pacemaker implantation was lower to women comparing to men (16 pts (13.6%) vs. 29 pts(24.6%), p<0.01). Furthermore, women stayed less at coronary care unit (8.07±4.11 vs. 2.1±1.7, p=0.14). Similarly, in hospital (4 pts(3.3%) vs. 1 pts (0.8%), p=0.37) and 30-day mortality (5 pt (7.9%) vs. 2pt (3.6%), p=0.44) was not different.

Conclusions: In conclusion, women demonstrated better baseline clinical characteristics except for PASP and lower need for permanent pacemaker implantation. However, they did not differ from men as far as short term mortality is concerned.

Sex-related clinical characteristics and outcome before and after transcatheter aortic valve implantation

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Background: Aortic stenosis is the most common valvulopathy in industrialized countries which is treated with transcatheter aortic valve implantation (TAVI) when patients are inoperable or high risk. Nevertheless, female sex constitutes an unfavorable predictive factor for the outcome of transcatheter interventions for heart diseases. In this study we will evaluate baseline clinical characteristics, echocardiographic parameters as well as electrocardiographic changes before and after TAVI.

Methods: Consecutive patients who underwent TAVI years were evaluated from an existed database. Baseline characteristics were collected before TAVI while echocardiograms and ECGs were recorded before TAVI and daily for 5 days after the procedure. We separated patients in two groups according to gender.

Results: Overall, data from 122 patients (pts) (80.42±5.6 years, AVA: 0.66±0.14 cm²) were analyzed. Out of them, 62 (pts) (52.5%) were female and 58 (pts) (47.5%) were male. When we compared both groups for baseline clinical characteristics, we found that women had smaller annulus (22.02±1.62 vs. 23.98±2.07, p<0.01) and aortic valve area (0.63±0.14 vs. 0.69±0.13, p=0.012) while AVAi did not differ among two sexes (0.37±0.07 vs. 0.36±0.08, p=0.61). Women had better baseline LVEF (52.16±9.37 vs. 47.69±13.01, p=0.03) but higher systolic pressure of pulmonary artery (47.35±13.96 vs. 37.92±10.95, p<0.01) and in higher percentage (45 pts (36.9%) vs. 25 pts (20.5%), p<0.01) comparing to men. Permanent pacemaker implantation was lower to women comparing to men (16 pts (13.6%) vs. 29 pts(24.6%), p<0.01). Furthermore, women stayed less at coronary care unit (8.07±4.11 vs. 2.1±1.7, p=0.14). Similarly, in hospital (4 pts(3.3%) vs. 1 pts (0.8%), p=0.37) and 30-day mortality (5 pt (7.9%) vs. 2pt (3.6%), p=0.44) was not different.

Conclusions: In conclusion, women demonstrated better baseline clinical characteristics except for PASP and lower need for permanent pacemaker implantation. However, they did not differ from men as far as short term mortality is concerned.