

Gender-Related Differences in Patients Undergoing Transfemoral Aortic Valve Implantation for Severe Aortic Stenosis

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Background:

Transcatheter aortic valve implantation (TAVI) is an effective alternative to surgical valve replacement in symptomatic patients with severe aortic stenosis (AS). The impact of gender on outcomes remains unclear due to conflicting results in recent studies.

Objective:

The aim of this single center study was to describe the baseline clinical profile of male and female patients undergoing transfemoral TAVI and to evaluate the influence of gender differences on outcomes after adjusting for different baseline characteristics.

Methods and Results:

The study cohort consisted of 293 consecutive patients who underwent transfemoral TAVI in the Tel Aviv Medical center. A Medtronic CoreValve bioprosthesis was used in 84% of patients and Edwards Sapien valve in 16%. Median follow-up was 480 days, with inter-quartile range of 330-730 days. Mortality and complication rates were examined using Cox logistic regression estimates and proportional hazards models.

Mean age was 83 ± 5.3 years. Women comprised 68% of the cohort. At baseline, men had a higher prevalence of peripheral vascular disease, heart failure, coronary heart disease, chronic atrial fibrillation and lower left ventricular ejection fraction ($p=0.0001$, $p=0.0001$, $p=0.0001$, $p=0.049$ and $p=0.0001$ respectively), while women were older and had smaller pre-procedural aortic valve area ($p=0.04$, $p=0.005$ respectively). Overall complication rates were similar between genders, with the exception of minor vascular complications which were more prevalent in women ($p=0.05$) and major arrhythmia events which were more prevalent in men ($p=0.03$). No significant differences in 30 days, 6 months and 1 year mortality rates were found between men and women. Adjustment for baseline differences between genders did not change the results.

Conclusion:

In this single center, single approach TAVI, we found no significant mortality differences between men and women despite significant differences in baseline characteristics.