Significant aortic regurgitation after transfemoral aortic valve implantation: patients' gender as independent risk factor.

Significant aortic regurgitation (AR) has been reported in 20% of patients undergoing transfemoral aortic valve implantation (TAVI) and has been associated with increased mortality. Depending on the population included and the type of implanted prosthesis, several anatomical and procedural factors have been linked with increased risk of post-TAVI AR. While the impact of patients' gender on this complication, is still contradictory. We sought to assess the impact of patients' gender on the risk of significant AR after TAVI. We included 323 consecutive patients (136 men) who underwent transfemoral implantation of either self-expandable or balloon-expandable prostheses for treatment of symptomatic aortic stenosis. After TAVI 52 patients (16.1%) had AR grade ≥ 2/4 as evaluated by angiography. They were more frequently male (59.6% vs. 40.4%, P = 0.005), received self-expandable (94.2% vs. 63.5%, P = 2/4. Alongside with the implantation of self-expandable aortic prosthesis, male gender independently increases the risk of significant AR in patients undergoing TAVI. The question if this finding is related to gender biology itself or to gender-related aggregation of subtle anatomic characteristics needs further investigations.

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