Transcatheter aortic valve replacement (TAVI), though a preferred treatment option in the elderly population carrying increased risks for open heart surgery, may result in prognosis-limiting moderate or severe aortic regurgitation. Here, we report a series of 11 patients from 3 German TAVI centers, suffering from moderate- to high-grade aortic regurgitation after CoreValve implantation, who were subsequently treated by Edwards Sapien XT implantation. The patients were 79.5 +/- 4.2 years of age and presented between November 2009 and February 2013 with a symptomatic high-grade aortic stenosis (mean maximum gradient 57 +/- 22 mmHg) and EuroSCORE of 16 +/- 7 %. Initial implantation of a Medtronic CoreValve resulted in moderate-to-severe aortic regurgitation (grade 2.64 +/- 0.37) although postdilatation was attempted in eight cases and snare repositioning was attempted in one case. All 11 patients were treated by a Sapien XT (Edwards) valve implanted into the initially deployed CoreValve: four via transfemoral, one via transaortical and six via transapical approaches. Successful implantation was possible...
in all 11 patients resulting in a reduction of aortic regurgitation to mean grade 0.23 +/- A 0.39. Two patients required permanent pacemaker. After 30 days, ten patients were alive, whereas one patient succumbed to pneumonia complicating advanced chronic obstructive pulmonary disease. In the instance of moderate or severe aortic regurgitation after TAVI of a CoreValve, transfemoral or transapical Sapien XT valve-in-valve deployment is an excellent option to reduce residual regurgitation to none or mild.