OUTCOME OF TRANSCATHETER AORTIC VALVE IMPLANTATION IN OCTOGENARIANS IN COMPARISON TO YOUNGER PATIENTS: RESULTS OF THE GERMAN REGISTRY ON TRANSCATHETER AORTIC VALVE IMPLANTATIONS

i2 Poster Contributions
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Background: Transcatheter aortic valve implantation (TAVI) is a promising less-invasive treatment option for surgical high risk patients with symptomatic aortic valve stenosis. Mainly elderly patients underwent this type of procedure, with the majority being octogenarians. We therefore aimed to analyze age dependencies on patient characteristics as well as procedural and clinical outcome after TAVI comparing octogenarians with patients at the age of ≤80 years.

Methods: The German TAVI registry is an ongoing non-randomized national multicenter registry including TAVI and balloon valvuloplasty cases. As of today, a total of 547 patients (>80 years: 323, 59.0%, group I; ≤80 years: 224, 41.0%, group II) have been included using the CoreValve device in 387 patients, and the Edwards device in 61 patients.

Results: Mean age was 85.6±3.4/73.3±12.9 years (group I/II). 80.7%/76.0% underwent transfemoral TAVI, 2.9%/3.1% transapical TAVI, 3.4%/2.8% transsubclavian TAVI. There were no significant differences in the hemodynamic valve status (aortic valve area 0.7/0.7cm²) except a higher mean gradient in group I (51.0/45.5mmHg, p<0.001). In addition, there was a higher incidence of preprocedural aortic regurgitations grade III/IV in group II (1.6/8.3%, p<0.05). Procedural outcome was similar in both groups with a procedural success rate of 98.4%/99.0%, mean procedure time of 73.0/70.0 min, mean contrast consumption of 149.9/155.8 ml. Mean gradient post procedure was 5.0/5.0 mmHg, aortic regurgitation grade III/IV post was 1.9/1.5%. Inhospital clinical outcome was (group I/II): death (9.5/7.8%, ns), stroke (1.4/4.4%, p<0.05), myocardial infarct (1.0/0%, ns), severe vascular access complication (4.8/0.6%, p=0.01), AV block type II/III (22.9/20.9%, ns).

Conclusions: The ongoing German TAVI registry demonstrates that TAVI can be very successfully performed in octogenarians with similar success rates to patients younger than 80 years. There are indicators for differences in the safety profile with a higher incidence of vascular complications in patients >80 years as well as more strokes in patients ≤80 years, but this needs to be confirmed in larger populations and multivariate statistics.