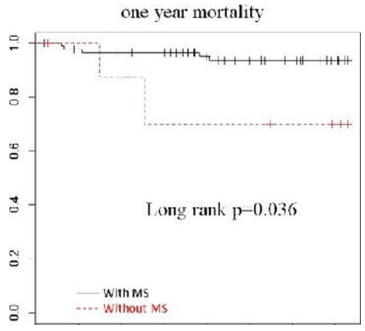
(unadjusted Odds Ratio: 17.40; 95% CI: 3.31 to 97.52; p<0.001) were significantly associated with HF exacerbation after TAVR. Multivariate analysis showed that MS had statistically significant impacts on outcomes with an adjusted Odds Ratio of 16.70 (2.58 to 120.52; p=0.03) for worsening HF after TAVR. Furthermore, as a result of evaluation using the Kaplan-Meier method and the log-rank test, one year mortality was higher in MS group (long-rank p=0.036).



one year mortality

Conclusions: This study suggests that mitral stenosis with annular calcification has an independent risk factor of worsening heart failure just after TAVR and one year mortality.

P4508
Procedural success and clinical outcome of the resheathable Portico transcatheter aortic valve using primarily left subclavian access

M.H. Van Wely[1], K. Van Der Wulp[1], M. Verkroost[2], H.G. Gehlmann[1], P.C. Kievit[1], L. Van Garsse[2], W. Morshuis[2], N. Van Royen[1]. *[1]Radboud University Nijmegen Medical Centre, Department of Cardiology, Nijmegen, Netherlands; [2]Radboud University Medical Centre, Department of Cardiothoracic Surgery, Nijmegen, Netherlands*

Objective: The aim of this study was to describe the procedural success and clinical outcome of the resheathable Portico bioprosthesis using the left subclavian artery as primary access.
Background: The Portico transcatheter aortic valve is a self-expandable, fully resheathable bioprosthesis. Femoral access is world-wide adopted as primary access in TAVI. Several reports on clinical outcome after transfemoral Portico implantation are published. However, results on alternative primary access remain scarce.
Methods: Between September 2015 and July 2017, consecutive patients with severe symptomatic aortic valve stenosis treated with TAVI using the Portico bioprosthesis were included. Prospective, nonrandomized, single-center analyses of procedural success and clinical outcome were performed based on the VARC-2 definitions. Primary access was the left subclavian artery.
Results: A total of 120 patients (median age 80 [76–84], 60.0% women, mean logistic Euroscore 15.0±9.8) had a Portico bioprosthesis implanted. Left subclavian artery was eligible as primary access in 75.8%. Procedural success was achieved in 95.8%. No procedural death occurred and 30-day all-cause mortality was 3.3%. Major vascular complications were observed in 1.7%, life-threatening and major bleeding both in 2.5%. Other complications observed were stroke (5.0%), new left bundle branch block (26.7%), new AV conduction disturbances (19.2%) and permanent pacemaker implantation (11.7%). Outcomes did not differ significantly between patients treated through left subclavian access compared with transfemoral access.

Clinical outcome and access used

	Total (n=120)	Left subclavian access (n=91)	Transfemoral access (n=29)	p
Procedural mortality	0 (0.0)	0 (0.0)	0 (0.0)	
30 day mortality	4 (3.3)	4 (4.4)	0 (0.0)	0.57
Major vascular complications	2 (1.7)	2 (2.2)	0 (0.0)	1.0
Life-threatening bleeding	3 (2.5)	2 (2.2)	1 (3.4)	0.57
Major bleeding	3 (2.5)	3 (3.3)	0 (0.0)	1.0
Stroke/ TIA	7 (5.8)	5 (5.5)	2 (6.9)	0.68
New permanent pacemaker	14 (11.7)	13 (14.3)	1 (3.4)	0.18

Data are presented as median [interquartile range], mean ± SD or n (%). TIA = Transient Ischemic Attack.

Conclusion: TAVR using the Portico bioprosthesis with the left subclavian artery as primary access appeared to be feasible and safe with excellent procedural success and low short-term complication rates. This study supports patient-tailored treatment, especially for those with contraindications for transfemoral approach.

THROMBOSIS AND ANTITHROMBOTIC TREATMENT IN VALVULAR HEART DISEASE

P4509
Dabigatran improves antibiotic efficacy in experimental Staphylococcus aureus endocarditis

C.J. Lerche[1], L. Christophersen[1], P.O. Jensen[1], J.P. Goetze[2], P.R. Nielsen[3], K. Thomsen[1], N. Hoiby[1], H. Bundgaard[4], C. Moser[1]. *[1]Rigshospitalet - Copenhagen University Hospital, Dept. of Clinical Microbiology, Copenhagen, Denmark; [2]Rigshospitalet - Copenhagen University Hospital, Dept. of Clinical Biochemistry, Copenhagen, Denmark; [3]University Hospital, Dept. of Pathology, Roskilde, Denmark; [4]Rigshospitalet - Copenhagen University Hospital, Dept. of Cardiology, Copenhagen, Denmark*

Background: Staphylococcus aureus colonisation on cardiac valves leads to fibrin formation, platelet aggregation and formation of septic thrombosis, i.e. the cornerstone elements in the pathogenesis of infective endocarditis (IE). Secondarily, this stimulates thrombin generation, which catalyses fibrin clot-formation on the valve. Dabigatran is a direct thrombin inhibitor (Factor IIa), blocking the conversion of soluble fibrinogen to insoluble fibrin. We hypothesized that by limiting fibrin formation and platelet aggregation involved in S. aureus biofilm formation in IE we could improve antibiotic efficacy and reduce valve inflammation.
Purpose: To investigate the effect of adjuvant dabigatran in experimental S. aureus IE.
Materials/Methods: In male Wistar rats (230 g) high grade S. aureus aortic valve IE was established. Infected rats treated with gentamicin (20 mg/kg/day s.c.) were randomized into two groups, 1) receiving dabigatran etexilate (10 mg/kg i.p. BID) or 2) saline. Infected rats were treated for two days and evaluated day 3 post-infection by blood cultures and quantitative bacteriology of valve vegetations, myocardium, spleen and kidneys. The effect was also evaluated by planimetric assessment of valve vegetation size. Pharmacokinetics of dabigatran and inflammatory cell markers were estimated.
Results: The dabigatran-treated group (n=12) had a reduced number of positive blood cultures as compared to controls (n=12) (6 vs. 11, p<0.02) as well a significant reduction of bacterial load in the aortic valve vegetations (p<0.04) and in the spleen (p<0.01). Additionally, valve vegetation size was reduced in the dabigatran-treated group compared to controls (1.6±1.25 mm^2 vs. 4.0±2.24 mm^2, p<0.004). Furthermore, dabigatran also reduced inflammation and cell adhesion markers interleukin-8 (IL-8) (60%, p≤0.05), tissue inhibitor of metalloproteinases 1 (TIMP-1) (59%, p<0.03) and L-Selectin (CD62L) (72%, p<0.03) compared to controls. In healthy rats p-dabigatran peaked at 803±18 μg/L after 1h and through concentration 5h post drug delivery was 41±20 μg/L.
Conclusions: Dabigatran enhanced antibiotic efficacy by means of reduced bacterial load, valve vegetation size and inflammatory markers. Our results indicate adjuvant dabigatran treatment might be a beneficial strategy to augment antibiotic effect and improve outcome in patients with severe S. aureus aortic valve endocarditis.
Funding Acknowledgements: Aase og Ejnar Danielsens Foundation. The A.P. Møller Foundation for the Advancement of Medical Science. Rigshospitalets Research Foundation

P4510
High-molecular-weight von Willebrand factor multimer ratio for the differentiation between true-severe and pseudo-severe low-flow, low-gradient aortic stenosis

J. Kellermair[1], H. Ott[2], D. Kiblboeck[1], H. Blessberger[1], J. Kammler[1], C. Reiter[1], T. Lambert[1], M. Grund[1], C. Steinwender[1]. *[1]Kepler University Hospital, Department of Cardiology and Internal Intensive Medicine, Linz, Austria; [2]Ludwig-Maximilians University, Department of Hemostasis and Transfusion Medicine, Munich, Germany*

Background: Subclassification of low-flow, low-gradient (LF/LG) aortic stenosis (AS) into a true-severe (TS) and a pseudo-severe (PS) subform bases on dobutamine stress echocardiography (DSE) and multi-detector computed tomography (MDCT). Uncertainty about stenosis severity frequently persists even after DSE and MDCT, therefore, there is a need for a biomarker-based discrimination to expand the diagnostic portfolio.
Sheer-stress induced degradation of high-molecular-weight (HMW) von Willebrand factor (VWF) multimers is a frequent phenomenon at the site of AS, thus, it might represent a valueable biomarker. The present study analysed the value of HMW VWF multimer ratio for LF/LG AS subcategorization.
Methods: Sixty consecutive patients with diagnosis of LF/LG AS were prospectively recruited and subclassified using DSE and/or MDCT. HMW VWF multimers of all patients were analysed using a densitometric quantification of Western Blot bands and HMW VWF multimer ratio was calculated.
Results: Patients were subclassified into TS LF/LG AS (n=36) and PS LF/LG AS (n=24) using DSE and MDCT. Patients with PS LF/LG AS showed a mean HMW VWF multimer ratio of 1.07±0.09 while in patients with TS LF/LG AS the mean ratio was 0.82±0.28 (p<0.001). HMW VWF ratio presented a ROC-AUC of 0.780 (95% CI: 0.667–0.894; p<0.001) with a calculated sensitivity of 0.47 (95% CI: 0.30–0.65) and a specificity of 1.00 (95% CI: 0.86–1.00) at the optimal cut-off <0.905 for diagnosis of the TS subform.
Conclusion: The present study introduces HMW VWF multimer ratio as a novel