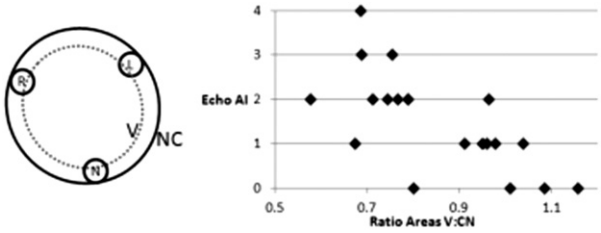

Conclusions: Rotational aortography with CT reconstruction is feasible and can guide TAVR. Sizing at the nadir of the native valve cusps may be a useful modality complementary to transesophageal echocardiography for implant sizing to reduce prosthetic AI.

TCT-866

Transcatheter Aortic Valve Implantation in Patients With Bicuspid Aortic Valve Disease: Results from the Milan Registry

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Background: Transcatheter aortic valve implantation (TAVI) is a viable option for high-risk patients with severe symptomatic tricuspid aortic valve stenosis. However, the role of TAVI in the treatment of the stenosed bicuspid aortic valve has not been clearly demonstrated.
Methods: Consecutive patients with bicuspid aortic valve disease in our center treated with TAVI from November 2007 to May 2012 were included. All data was collected from a comprehensive prospective database and events were adjudicated according to the Valve Academic Research Consortium (VARC) definitions.
Results: In total, 8 patients undergoing TAVI were identified to have an anatomical bicuspid aortic valve. The mean age was 75.8 ± 5.5 years and 75.0% were female. The patients were deemed high risk for surgery, with a median STS score of 6.5 (interquartile range [IQR] 3.7-13.8). Of the patients n=5 (62.5%) underwent implantation of the Medtronic CoreValve® ReValving system device (Medtronic Inc., Minneapolis, MN) and n=3 (37.5%) the Edwards SAPIEN™/SAPIEN XT™ (Edwards Lifesciences, Irvine, California). At 30 days, there were 2 deaths, both secondary to aortic dissection (one peri-procedural and one 24 hours post-procedure). There were no events of myocardial infarction or stroke. With regards to the procedure, there were no cases of device embolization. The overall VARC device success was n=6 (75.0%), with both failures due to residual significant aortic regurgitation. At a median of 435 (IQR 399-507) days follow-up, there was one further death secondary to hepatic failure. One other patient was readmitted to hospital at day 75 due to acute cardiac compensation. This resulted in a combined efficacy endpoint of 50.0% at follow-up.
Conclusions: Despite small numbers, the outcomes of TAVI for the stenosed bicuspid aortic valve may not be optimal and hence require further investigation prior to this becoming an acceptable treatment option in this group of patients.

TCT-867

Clinical Impact of Persistent Left Bundle Branch Block After CoreValve Revalving System Implantation. Insight from a Multicenter Italian Registry.

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Background: Conduction disturbances are relatively common after Transcatheter Aortic Valve Implantation (TAVI). Previous data demonstrated an adverse impact of persistent left bundle branch block (LBBB) after surgical aortic valve replacement. It is unclear whether a new onset LBBB may also impact on prognosis of patients after TAVI.
Methods: Among 1060 patients treated with CRS-TAVI between October 2007 and April 2011 in high volume centers in Italy, we considered those without LBBB nor Pace-Maker at admission (879 patients, 82.7%). Those who had received a PM within 48 hours from the procedure were then excluded (61 patients, 7%), resulting in a final study population of 818 patients.
Results: Among them, 224 patients (Group A, 27.3%) developed a persistent LBBB, the remaining 594 patients (Group B, 72.7%) did not. Clinical characteristics were similar between groups.In group A, a low implant was significantly more frequent (15% vs 9.8%, p=0.02).At 30 days as well as at 1 year(mean follow up of 266±248 days, median 180 days), survival analyses and inherent log rank tests showed that LBBB was not associated with a higher all-cause mortality, cardiac mortality, hospitalization for heart failure. At 30 days, but not at 1 year, Group A had a significantly higher rate of PM implantation.
Conclusions: In this high volume centers registry, persistent LBBB post CRS-TAVI showed no effect on hard end points. On the other hand, LBBB was associated with a higher short term rate of PM implantation.

TCT-868

Incidence, Predictors and Impact of Bleeding after Transcatheter Aortic Valve Implantation

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Background: Data regarding the determinants and outcomes of bleeding after transcatheter aortic valve implantation (TAVI) are limited. The purpose of this study was to evaluate the incidence, predictors and impact of bleeding after TAVI.
Methods: We included 250 consecutive patients (Pts) implanted in our center between May 2006 and Oct 2011. All procedures were performed using the Edwards SAPIEN and SAPIEN XT valves, via transfemoral (TF) and transapical (TA) routes. Surgical cutdown was performed for TF access with the SAPIEN valve (22-24 F introducers), while percutaneous closure (Prostar) was used with the SAPIEN XT valve (18-19F introducers). Ascendra 1 (28F) and Ascendra 2 (26F) delivery systems were used for TA TAVI. Dual antiplatelet therapy was administered prior to TF implantation, aspirin only in TA cases, with 70 UI/kg of unfractionated heparin after sheath insertion. Bleeding and other complications were defined using VARC criteria.
Results: TAVI was performed via TF route in 190 cases (76%), and SAPIEN XT was used in 123 Pts (49.2%). Bleeding after TAVI was observed in 68 Pts (27.2%) as follows: life-threatening bleeding (LTB) in 33 (13.2%), major bleeding in 23 (9.2%) and minor bleeding in 12 (4.8%). Bleeding was access related in 70%. After multivariate analysis, only TA access was an independent predictor of LTB (OR 3.35, 95% CI: 1.52–7.38, p<0.003). Pts presenting LTB had higher 30-day mortality: 33.3% vs.3.7%, p<0.001 and 1-year mortality:82% vs. 46%, p < 0.001. LTB was an independent predictor of 30-day (OR 6.98, 95% CI: 1.93–25.1, p=0.003) and 1-year mortality (HR 2.18, 95% CI:1.11–4.28, p=0.024).Survival rate was similar in patients with and without major bleeding, at 30 days (0 vs. 8.4%, p = 0.23) and 1 year (78.5% vs. 77%, p=0.72).
Conclusions: Bleeding after TAVI was observed in over 25% of cases and was mostly access-related. LTB was associated with higher 30-day and 1-year mortality.

TCT-869

Percutaneous clousure of para valvular aortic leak with AVPIII device, clinical follow-up late.

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Background: Percutaneous clousure of paravalvular aortic leak(APL) has been presented as an alternative to reoperation. Objective: To describe our population undergoing percutaneous repair of APL with Amplatzer Vascular Plug III® (AVPIII) and describe clinical events.
Methods: Prospective registry for all patients(p) who underwent percutaneous repair of at least 1 APL. AVPIII devise used.
Results: Twelve p, age 67±14years. Number of aortic valve surgeries 2.03±0.96. Interval time from last surgery to percutaneous closure was 7.6±7.6years. Nine p had mechanical valve prosthetis, 4p had also a mechanical mitral valve and presented a mitral paravalvular leak. Clinical presentation: 30% had heart failure, 10%hemolytic anemia and 60% both. NYHA functional class 3±0,6, hematocrit 28,7±5%, Echo: LVEF 60±9%; Systolic PAP: 55±28 mmHg; Numbers of APL 16; Degree of regurgitation 3,2±0.8. Euroscore 14±4. In 13 procedures, 13 APL was attempted; the wire was crossed retrograde in 12 APL, arteriuos venous loop was estabilised in 4p, in whom the delivery sheet was advanced anterograde. The procedure was successful in 11p and 11APL. 1,09 AVPIII devices were implanted, simultaneous mitral and aortic closure was done in 3p. Outcome of the procedure: decreased APL regurgitation to degree 1±0.8. Periprocedural events: pacemaker 1p, femoral pseudoaneurysm 1p and mortality 1p(he did not have AVPIII deployed and died 3 days later of heart failure). Follow-up 642±397days. Ninety one per cent of p with AVPIII have improvement of functional class in at least 1 grade, NYHA fuctional class 2 ±0,9(p=0,01), hematocrit 35±4,3%(p=0,03) and APL regurgitation 1±1,1(p=0,01). Late clinical events: new intervention residual APL regurgitation in 2p(1p surgery at 246 days and 1p new percutaneous repair with new AVPIII at 727 days). Hospitalization for aortic regurgitation 2p, late mortality in 1p at 831 days of coronary artery disease.
Conclusions: Percutaneous clousure of APL with AVPIII device is safe with high rate of immediate procedural success. Patients presented late clinical improvement in both

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