Results: PPI was required in 173 of 1965 (8.8%) patients. Those with PPI had more frequent prior chest wall radiation (5.2% vs 2.4%, p=0.04); baseline EKG findings of bradycardia (sinus, sinus pauses, or junctional)(4.1% vs 1.2%, p=0.01), right bundle branch block (RBBB)(45.9% vs 12.6%, p<0.001), and left anterior fascicular block (15.9% vs 7.3%, p<0.001); and Echo findings of smaller left ventricular (LV) end-diastolic dimension (4.26 cm vs 4.43 cm, p=0.05) and LV outflow tract (LVOT) diameter (1.97 cm vs 2.01 cm, p=0.03), and larger ratio of annulus to LVOT diameter (1.08 vs 1.06, p=0.006) and prosthesis to LVOT diameter (1.23 vs 1.21, p=0.001). By multivariable analysis, independent predictors of PPI included prosthesis/LVOT diameter (OR 11.0, p=0.003), RBBB (OR 6.2, p<0.001), and bradycardia (OR 3.6, p=0.018). At 1 year, PPI was associated with repeat hospitalization (24.7% vs 18.6%, p=0.03), but not with mortality (26.7% vs 21.6%, p=0.11), cardiovascular mortality (15.1% vs 13.4%, p=0.59), stroke (3.5% vs 5.9%, p=0.27), or myocardial infarction (2.4% vs 1.8%, p=0.93). There were no significant differences in LV ejection fraction (EF), LV end-systolic dimension, or heart failure symptoms (NYHA class) at 1 year.
Conclusions: PPI was required in 8.8% of patients without prior PPI undergoing TAVR with a balloon-expandable valve. Independent predictors of PPI included the ratio of valve prosthesis diameter to LVOT diameter, baseline RBBB, and bradycardia. PPI was not associated with major adverse cardiovascular events or differences in LV function at 1 year.

TCT-116

Prosthesis-Patient Mismatch after Aortic Valve-In-Valve Implantation: Insights from the Global Valve-in-Valve Registry

Sabine Bleiziffer[1], Webb John[2], Rudiger Lange[1], Massimo Napodano[3], Susheel Kodali[4], David Hildick-Smith[5], Dominique Himbert[6], Ulrich Schaefer[7], Josep Rodes-Cabau[8], Hendrik Treede[9], Marco Barbanti[10], Stephen Brecker[11], Azeem Latib[12], Jean-Claude Laborde[13], Ran Kornowski[14], Danny Dvir[15]
[1]German Heart Center Munich, Munich, Germany, [2]St Pauls Hospital, vancouver, british Columbia, [3]University of Padova, Padova, ITALY, [4]Columbia, New York, United States, [5]Royal Sussex County Hospital, Brighton, United Kingdom, [6]Bichat, Paris, a, [7]St Georg Hospital, Hamburg, 011, [8]Quebec Heart and Lung Institute, Quebec, Canada, [9]Hamburg University, Hamburg, Germany, [10]St. Paul's Hospital - University of British Columbia, Vancouver, British Columbia, [11]St. George's Hospital, London, United Kingdom, [12]San Raffaele Scientific Institute, Milan, Italy, [13]St.George hospital, London, Plumtree Nottingham, United Kingdom, [14]Rabin Medical Center, Petach Tikva, Israel, [15]St Paul's Hospital, Vancouver, British Columbia

Background: Implantation of a transcatheter valve into a degenerated bioprosthesis during aortic valve-in-valve procedure (VinV) might significantly reduce the effective orifice area (EOA) available for blood flow. We sought to investigate the impact of prosthesis-patient mismatch (PPM) on hemodynamics and survival in these patients.
Methods: Two hundred and twenty data sets of aortic VinV procedures from the Global Valve-in-Valve Registry were investigated. Severe PPM was defined as an indexed EOA < 0.65cm2/m2 patient body surface area (BSA).
Results: Severe PPM was present in 70 patients after aortic VinV implantation (31.8%, age 80 ± 9.4 years, 60% men). The incidence of severe PPM was higher in patients who received a SAPIEN device vs. a CoreValve (43.8% vs. 15.2%, p<0.0001). Patients with severe PPM had larger body weight (80.6 ± 16 kg vs. 72.4 ± 15.1, p=0.0003), larger BSA (1.94 ± 0.23 m2 vs. 1.82 ± 0.22, p<0.0001), higher aortic mean gradient after the procedure (20.7 ± 9.2 mmHg vs. 13.8 ± 7.2) and lower aortic valve area (1.03 ± 0.19 cm2 vs. 1.62 ± 0.44), in comparison with patients without severe PPM. In patients who survived aortic VinV implantation procedure, one-year survival was not affected by having severe PPM (86.7% vs. 89.1% in patients without severe PPM, log rank p=0.69).
Conclusions: Severe PPM is common after aortic VinV implantation, occurring in approximately one-third of patients and more frequently after SAPIEN device implantation. Despite higher valve gradients in patients with severe PPM, one-year survival was similar to those without severe PPM.

TCT-117

Quality of Life Outcomes Among High-Risk Patients Undergoing TAVR via the Transapical Approach: A PARTNER Continued Access Substudy

Ajay J. Kirtane[1], David Brown[2], Mathew Williams[3], Isaac George[4], Yang Lei[5], Elizabeth Magnuson[6], Matthew R. Reynolds[7], Suzanne V. Arnold[8], Martin Leon[9], Craig Smith[3], Vinod Thourani[10], Lars Svensson[11], E. Murat Tuzcu[12], Wilson Y. Szeto[13], Todd Dewey[14], David Cohen[15]
[1]Columbia University / Cardiovascular Research Foundation, New York, NY, [2]N/A, Plano, Texas, [3]Columbia University, New York, United States, [4]Cardiothoracic Surgery, New York, NY, [5]Saint Luke's MidAmerica Heart Institute, Kansas City, MO, [6]Saint Luke's MidAmerica Heart Institute, Saint Louis, MO, [7]Harvard Clinical Research Institute, Boston, MA, [8]Saint Lukes Mid America Heart Institute, Kansas City, KS, [9]Cardiovascular Research Foundation, New York, NY, [10]Emory University, Atlanta, GA, [11]Cleveland Clinic, Cleveland, USA, [12]Cleveland Clinic Foundation, Cleveland, Ohio, [13]University of Pennsylvania Medical Center, Philadelphia, Pennsylvania, [14]Medical City Dallas Hospital, Dallas, TX, [15]Saint Luke's Mid America Heart Institute, Kansas City, United States

Background: In the randomized PARTNER trial of transcatheter aortic valve replacement (TAVR) for high-risk aortic stenosis, TAVR via the transapical (TA) approach was associated with worse health-related quality of life (HRQOL) in the short-term compared with surgical aortic valve replacement (SAVR). Since PARTNER A represented the first TA-TAVR procedures for many study sites, it is possible that results have improved with greater experience. We therefore examined HRQOL after TA-TAVR in the non-randomized continued access registry (NRCA) of the Edwards-Sapien valve and compared these outcomes with patients from the randomized controlled trial (RCT).
Methods: Patients undergoing TA-TAVR in the NRCA of the Edwards Sapien valve underwent standardized health status assessments using the Kansas City Cardiomyopathy Questionnaire (KCCQ), the Short Form-12 (SF-12), and the Euro-Qol-5D (EQ-5D) at baseline, 1 month (m), 6 m, and 12 m after TAVR. Post-procedure health status outcomes were compared with those of the TA cohort of the PARTNER RCT who were treated with either TA-TAVR or SAVR.
Results: Among NRCA TA-TAVR patients with evaluable data, the overall KCCQ summary score increased by 12.6 points at 1 m (n=704), 25.8 at 6 m (n=608), and 25.1 at 12 m (n=504) (p<0.001 for all compared with baseline). Compared with RCT-TA patients, there were no significant differences in HRQOL at 12 m, but there were trends toward greater improvements at 1 and 6 m. Compared with RCT-SAVR patients, there were no significant differences in health status outcomes at any follow-up timepoints (mean difference in KCCQ Overall Summary Score adjusted for baseline: -1.8 at 1 m, -3.8 at 6 m, 1.8 at 12 m; all p=NS). Similar results were seen for the SF-12 physical (0.9 at 1 m; -1.1 at 6 m; 0.2 at 12 m; all P=NS) and mental (-1.4 at 1 m; -0.3 at 6 m; -0.9 at 12 m; all P=NS) component summary scores.
Conclusions: Improvements in both disease specific and generic health status among patients in the NRCA cohort undergoing minimally invasive TA-TAVR with the Sapien valve were similar to (but not better than) those of SAVR as performed within the randomized PARTNER trial.

TCT-118

A Multidisciplinary, Multimodality, But Minimalist (3M) Approach To Transfemoral Transcatheter Aortic Valve Replacement Facilitates Safe Next Day Discharge In High Risk Patients

David A. Wood[1], Rohan S. Poulter[2], Richard Cook[3], Sandra Lauck[4], Philippe Genereux[5], Iefan Lim[2], Nigussie Bogale[6], Ronald K. Binder[7], Marco Barbanti[8], Danny Dvir[9], Melanie Freeman[10], Mathieu Lempereur[11], Imran Shiekh[11], John Tan[4], John Jue[2], Ken Gin[2], P. K. Lee[11], Parvathy Nair[11], Teresa S. Tsang[11], Jonathon K. Todd[11], Anson Cheung[10], Jian (James) Ye[12], Jonathon A. Leipsic[13], David Cohen[14], Martin Leon[15], Webb John[10]
[1]Centre for Heart Valve Innovation, Vancouver, British Columbia, [2]University of British Columbia, Vancouver, British Columbia, [3]University of british Columbia, Vancouver, British Columbia, [4]St. Paul's Hospital, Vancouver, British Columbia, [5]Cardiovascular Research Foundation, , New York, NY, NY, [6]Vancouver General Hospital/University of British Columbia, Vancouver, BC, [7]University of Zurich, Zurich, Switzerland, [8]St. Paul's Hospital - University of British Columbia, Vancouver, British Columbia, [9]St Paul's Hospital, Vancouver, British Columbia, [10]St Pauls Hospital, Vancouver, British Columbia, [11]Vancouver General Hospital, Vancouver, British Columbia, [12]St. Pauls Hospital, Vancouver, British Columbia, [13]St. Paul's Hospital, Vancouver, Canada, [14]Saint Luke's Mid America Heart Institute, Kansas City, United States, [15]Cardiovascular Research Foundation, New York, NY

Background: TAVR is an acceptable alternative to surgery in high risk patients; however, complications and cost currently limit expansion into lower risk populations. Although mortality, vascular injury, stroke, paravalvular regurgitation and length of stay (LOS) are expected to improve, we sought to determine if

ORALS