planned surgery or intervention. Difference of success and access site complication rate was tested with chi square test. OR and its 95% CI were calculated with multivariate logistic regression analysis adjusted by patient background.

**Results:** 16 (19.5%) and 2 (11.1%) patients had access site complications in 18Fr and 14Fr group, respectively. No significant difference was observed (p = 0.52, 73 (89.0%) and 18 (100%) patients had successful TAVI in 18Fr and 14Fr group, respectively. No statistical difference was observed in success rate as well (p = 0.36). Although 14 Fr group showed shorter fluoroscopic time, it was not significant (26.4 vs 27.2 min, p = 0.77). There was no difference in contrast amount (133.8 vs 141.4ml, p = 0.67). Adjusted OR of access site complication in 14Fr compared to 18Fr was 0.20 (95%CI: 0.03-1.59, p = 0.12). OR of successful TAVI was not calculative since no failed case was observed in 14Fr group.

**Conclusions:** Compared with standard 18Fr sheath, 14Fr balloon expandable sheath showed lower complication rate, higher success rate, shorter fluoroscopic time and smaller amount of contrast use but they did not reach statistical significance. Further investigation should be needed.

**TCT-805**

Impact of Pulmonary Hypertension on Outcome after Transcatheter Aortic Valve Implantation

Alexander Lauten1, Ralf Zahn2, Axel Linke3, Sack Stefan1, Markus Ferrari2, Horst Sievert2, Eberhard Grube4, Ulrich Gercken2, Jochem Senges1, Hans Figulla1

1University Heart Center Jena, Jena, Germany, 2Department of Cardiology, Herzzentrum Ludwigsheiden Germany, Ludwigsheiden, Germany, 3XXX, XX, MN, 4Hospital Schwabing Academic Municipal Hospital Munich, N/A, 5CardioVascular Center Frankfurt, Frankfurt, Germany, 6University Hospital Bonn, Bonn, Germany, 7Hospital St Petrus, Heart center Rhein-Ahr, Bonn, Germany, 8Institut fuer Herzinfarktforschung, Essen, Germany

**Background:** Pulmonary Hypertension (PH) is considered a significant risk factor in patients with aortic valve disease for and the prognostic implications of PH are unclear in high-risk patients undergoing Transcatheter Aortic Valve Implantation (TAVI).

**Methods:** Between January 2009 and June 2010, a total of 1285 patients undergoing TAVI were included in this registry (mean age 81.7±6.6, 41.9% males). Patients were grouped according to systolic pulmonary artery pressure (PASP): group I: 277 patients, (21.6%) with PASP <30mmHg, group II: 598 patients (46.5%) with PASP 30-50 mmHg and group III: 410 patients (31.9%) PASP >50mmHg. Patients in group III had a significantly higher Euroscore (26.6±16mmHg vs group I 18.3±11mmHg vs group II 18±11mmHg; p<0.0001) and were more hypertrophic with a higher proportion presenting in NYHA class IV (28.5% vs. group I 13.9% vs. group II 8.3%; p<0.0001).

**Results:** In all subgroups, the majority of procedures was performed transfemorally with a high procedural success rate. The rate of TAVI-associated complications was comparable independent of PASP (cerebrovascular accident: group I 3.3% vs. group II 3.6% vs. group III 2.0%; p=0.25; permanent pacemaker: group I 33.8% vs. group II 38.1% vs. group III 35.2%; p=0.24). Functional NYHA class and survival at 30 days demonstrated excellent outcome in all subgroups (30-day survival group I 91.2% vs. group II 91.5% vs. group III 91.9%; p=0.59). All subgroups experienced a significant improvement of self-assessed quality-of-life (according to EuroQoL5d-visual analogue scale) with the largest gain in group III (0.112±0.035 vs. group I 0.055±0.032 vs. group II 0.04±0.032; p=0.15).

**Conclusions:** In conclusion, non-surgical patients severe AS have a high prevalence of PH. However, based on the registry data, early mortality after TAVI is not increased in patients with PH. This subgroup benefit from the procedure with functional improvement and improved postoperative quality-of-life.

**TCT-806**

Long-Term Outcomes From The CoreValve Transcatheter Aortic Valve Australia-New Zealand Study

Ian Meredith1, Tony Walton2, Darren Walters2, Stephen Worthley3, Sanjeevan Pasupati4, John Ormiston5, Robert Whitbourn6, Gerald Yong7, David Muller8

1Monash University, Melbourne, Australia, 2Alfred Hospital, Melbourne, Victoria, 3The Prince Charles Hospital, Brisbane, Queensland, The University of Adelaide, Adelaide, Australia, 4Waikato Hospital, Private Bag, New Zealand, 5Associate Professor, University of Auckland Medical School, Auckland, New Zealand, 6Vinh’s Hospital - Melbourne, Melbourne, Victoria, 7Royal Perth Hospital, Perth, Western Australia, 8University of NSW, Darlinghurst, Australia

**Background:** Percutaneous transcatheter aortic valve implantation (TAVI) is a proven therapy for patients at high risk for surgical AV replacement. Although numerous studies have reported the safety and efficacy of TAVI, integration of this therapy into standard of care varies widely by country, and country-or region-specific data could support local adoption and approval. The CoreValve Australia-New Zealand Study (ANZ) is evaluating the safety and effectiveness of the CoreValve System (Medtronic, Minneapolis, MN) in an Australia-New Zealand patient population.

**Methods:** ANZ is a prospective, multicenter, single-arm, study enrolling patients with severe symptomatic AS from 10 experienced centers. Primary safety endpoints were:

- Cardiac death (CD) and major adverse cardiovascular/ cerebrovascular events (MACCE; all-cause death, myocardial infarction [MI], stroke, or reintervention) at 30 days. All clinical source documentation will be fully monitored. An independent Clinical Events Committee adjudicated MACCE events and death based on VARC.

**Results:** Baseline characteristics (n=428) include: 45% women, age 83.9±5.9 yrs; 76.7% NYHA Class III/IV, STS 5.9±4.2, logEuroSCORE 17.6±11.0, 35.3% atrial fibrillation, 31.3% prior PCI, 25.7% previous CABG; 20.1% prior MI, and prior balloon valvuloplasty in 22.7%. Procedural success was 98.4%: Vascular complications, major 4%; bleeding, life-threatening/disabling 4.7%, major 8.9%. At 30 days, 97.9% of patients were free from CD, 96.4% from stroke, and 85.8% from MACCE. 79.8% improved ≥1 NYHA class, AV area significantly improved by 1.2±0.5 cm2 and mean gradient by 41.7±16.7 mmHg; 81.6% of patients had ≤ mild AR. At 1 year, 93.5% were free from CD, 94.7% from stroke and 78.0% from MACCE. NYHA, AR, AV area and mean gradient improvements persisted at 1 year. PPM rates were evaluated by experience; for ≤30 implants, the PPM rate was 33.1%; for >30 implants; 19.9%. No valve migrations have been reported.

**Conclusions:** Early to midterm outcomes showed mortality and morbidity outcomes within expectations for percutaneously treated patients with severe symptomatic AS in this very high-risk subgroup. Longer term follow-up will be presented at the time of the meeting.

**TCT-807**

Self-expandable Transcatheter Aortic Valve Implantation for Aortic Stenosis after Mitral Valve Surgery

Giuseppe Brusch1, Federico De Marco2, Alberto Barosi3, Luca Bottal1, Paola Colomb1, Jacopo Oreglia1, Sandra Nonini1, Luigi Martellini1, Silvio Kligmann1

1Niguarda Ca’ Granda Hospital, Milan, Italy

**Background:** Transcatheter aortic valve implantation (TAVI) has emerged as a valuable option to treat patients with symptomatic severe aortic stenosis not being considered for surgery because of significant comorbidities. Concerns exist about treating patients who previously underwent mitral valve surgery for possible interference between the percutaneous aortic valve and the mitral prosthesis or ring.

**Methods:** At our Center from May 2008 one hundred sixty-one patients (74 male) with severe symptomatic aortic stenosis, mean age 81.9±9 years, were eligible for TAVI. Nine patients affected by severe aortic stenosis, previously underwent mitral valve surgery (4 mono-leaflet, 3 bi-leaflet, 1 bioprosthesis, 1 mitral ring); they were judged high risk surgical candidates, after combined cardiac surgeons and cardiologist evaluation, and underwent TAVI (Table I).

**Results:** Seven patients underwent standard femoral retrograde CoreValve implantation, two patient underwent a direct aortic implantation through a paravascular resection. All patients experience immediate improvement of the hemodynamic status. No deformation of the nitinol tubing of the CoreValve neither distortion or malfunction of the mechanical valve or mitral ring occurred as assessed by echographic and fluoroscopic evaluation. No major post-operative complications occurred. In all patients echocardiography evidenced normal valve function during follow-up.

**Patient characteristics and results**

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Value</th>
<th>% in SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender (female)</td>
<td>7</td>
<td>77.7%</td>
</tr>
<tr>
<td>Mean Age (years)</td>
<td>73.7</td>
<td>6.6</td>
</tr>
<tr>
<td>Left Ventricle Ejection Fraction (%)</td>
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<td>12</td>
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<tr>
<td>Mean Aortic Gradient (mmHg)</td>
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<td>14</td>
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<td>Mean STS Score Mortality (%)</td>
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<tr>
<td>PM Implant</td>
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<td>-</td>
</tr>
<tr>
<td>Stroke</td>
<td>0</td>
<td>-</td>
</tr>
<tr>
<td>30-day Mortality</td>
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<td>-</td>
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**Conclusions:** Our experience confirms the safety and feasibility of CoreValve implantation in patients with mechanical / biological mitral valves or mitral annuloplasty ring.

**TCT-808**

Expansion Geometry of the Edwards Saxien XT aortic valve following a MSCT guided oversizing approach

Alexander Leber1, Uli Ebbersberger2, Ellen Hoffmann3, Markus Kasel4

1Sunnybrook Heart Science Centre, Toronto, Ontario, 2Heart Centre, Munich Bogenhausen, Munich, BY, 3Heart Centre Munich Bogenhausen, Munich, by, 4German Heart Centre, Munich, Germany

**Background:** So far device sizing before TAVI is recommended by Echo measurements which are however known to be somehow inaccurate taking into account the oval shape of the aortic annulus and device undersizing is a major cause for paravalvular regurgitation. In the current study we therefore assessed the post implantation expansion pattern and the functional performance of the Edwards Saxien XT (Edwards Lifesciences, California) device after TAVI and a MSCT guided sizing approach.