therapy, however BAV provides effective bridging to definitive therapy.

**TCT-115**

Immediate and Long-Term Results of Mitral Balloon Valvuloplasty in Patients With Severe Pulmonary Hypertension

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**Background:** OBJETIVE: assess the long-term outcome of percutaneous mitral balloon valvuloplasty (PMV) in patients (pts) with severe pulmonary hypertension (PHT).

**Methods:** PMV was performed in 132 consecutive pts. 39 (29.5%) had severe PHT defined as resting pulmonary artery systolic pressure (PAPs) > 60 mmHg at baseline (group A), and 93 controls pts (70.5%) (group B). Pts were clinical and echocardiographically evaluated immediately after procedure 6 months after and once per year thereafter, evaluating echocardiographic Wilkins score (ES), mitral valve area (MVA), PAPs, and mitral regurgitation(MR).

**Follow-up endpoints were considered:** restenosis(RS),mitral valve replacement (MVR) or MVb requirement, or cardiovascular death. A logistic regression model was adjusted to determine independent predictors for outcome. A value of p<0.05 was considered significant.

**Results:** Median follow-up was 48 months (Q25-75: 24-84). Group A pts aged 42.3 ± 14 years; 89.7% (31 pts) were female; 23% pts had atrial fibrillation (AF) and 2 and 2 patients were on digoxin (18 pts NYHA II and 19 p NYHA III). Median ES was 7 (Q25-75: 5-9). No differences on baseline characteristics, success achievement, RS and follow-up symptoms between Groups were found. MVA increased from 0.90 cm2 (Q25-75: 0.82-1.02) to 1.75 cm2 (Q25-75: 1.50-2.02). PAPs fell from 57.5 mmHg (Q25-75: 51.5-65) to 35 mmHg (Q25-75: 30-50) in Group A and from 38 mmHg (Q25-75: 30-43) to 30 mmHg (Q25-75: 27-35) in Group B. Success was associated with ES < 8 (p=0.01) both in group A and B. Long term outcomes are shown in table 1. There were 3 in hospital deaths and 3 deaths during follow-up. 10 pts required new PMV; 6 p RVM. RS at 60 months follow-up was associated with ES > 8 in both groups, A (p=0.03) B (p=0.02).

**Table 1.**

<table>
<thead>
<tr>
<th>Metric</th>
<th>Group A (n=50)</th>
<th>Median (IQR)</th>
<th>Group B (n=83)</th>
<th>Median (IQR)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MVA (cm^2)</td>
<td>1.50 (1.35-1.61)</td>
<td>1.80 (1.40-2.07)</td>
<td>1.00 (0.85-1.18)</td>
<td>1.35 (1.15-1.60)</td>
</tr>
<tr>
<td>PWV (mmHg)</td>
<td>38 (30-43)</td>
<td>40 (30-50)</td>
<td>38 (30-50)</td>
<td>40 (30-50)</td>
</tr>
<tr>
<td>ES</td>
<td>7 (4-11)</td>
<td>7 (4-11)</td>
<td>3 (2-6)</td>
<td>3 (2-6)</td>
</tr>
</tbody>
</table>

**Conclusion:** PMV is a safe and effective technique for treating patients with mitral stenosis and severe PHT. Despite a gradual MVA decrease, most patients remain asymptomatic and PAPS values were stable in the long term follow up.

**TCT-116**

Long-Term Follow-Up After Myocardial Contrast Echocardiography-Guided Alcohol Septal Ablation for Hypertrophic Obstructive Cardiomyopathy

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**Background:** Our aim is to report the immediate and long-term results of alcohol septal ablation (ASA) guided by myocardial contrast echocardiography (MCE) for treatment of symptomatic hypertrophic obstructive cardiomyopathy from a high-volume centre.

**Methods:** We reviewed the data of 161 patients (88 males) who underwent MCE guided ASA at our institution from 2000 to 2011.

**Results:** Mean age was 56.4 ± 15.9 years (range 8-87). Medical treatment included beta-blockers (75%), calcium-channel antagonists (49%) and diuretics (2%). 22% had prior pacemaker (PM) implantation, 3% prior implantable cardioverter-defibrillator (ICD) and 4% prior cardiac surgery. At baseline, mean New York Heart Association (NYHA) functional class was 2.8 ± 0.6. Mean left ventricular outflow tract (LVOT) peak gradient and septal thickness were 92.4 ± 45 mmHg and 23.0 ± 3.8 mm, respectively. During ASA, 2.0 ± 0.8 ml of absolute alcohol was injected in 1.2 ± 0.4 septal perforators. Final procedural LVOT peak gradient was 20 ± 22 mmHg. Procedural success (immediate LVOT peak gradient reduction >50%) was achieved in 94%. Complications included coronary dissection requiring stent implantation (1 procedure). There were 2 in-hospital deaths (1 refractory ventricular arrhythmia, 1 complete atrioventricular block). In-hospital permanent PM implantation was required following 8.7% of procedures. One patient required an ICD for non-sustained ventricular tachycardia. Mean peak CK was 932 ± 1849 IU/L. At a mean follow-up of 2.3 ± 1.8 years after the procedure (range 0.8-4.7), there were 7 additional deaths (overall annual mortality of 2.3% in 12 patients (7%) and a new ICD was needed in 1 patient (5%). Mean NYHA class was improved to 1.2 ± 0.5.

**Conclusion:** MCE-guided ASA is associated with a high rate of immediate success and a low rate of procedural complications. In addition, long-term follow-up shows sustained clinical benefit with a low rate of adverse events (annual mortality lower than the expected rate of 3-4% in this high-risk population).

**TCT-117**

Off-pump, Trans-Apical Placement of Artificial Chordae Tendineae to Correct Mitral Insufficiency: European Trial Update

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**Background:** The prognostic value of correction of severe mitral regurgitation (MR) due to leaflet prolapse is well established. Artificial chordae tendineae (ACT) using polytetrafluoroethylene sutures have been shown to provide durable support to prolapsing leaflets in open surgical procedures.

**Methods:** A novel instrument (Neochord, Inc., Minneapolis, MN) allows off-pump, trans-apical placement of ACT to a prolapsed segment of a mitral leaflet using echocardiographic guidance. The ACT is anchored at the left ventricular apex with the proper length established on the beating heart with echo guidance. The TACT Trial (Transapical Placement of Artificial Chordae Tendineae) is a non-randomized, prospective evaluation of the Neochord instrument. We report the first patients enrolled in the trial, which is ongoing in Europe.

**Results:** Thirteen patients have been enrolled to date in the TACT Trial. ACT were not placed in 2 patients for patient-specific reasons. ACT were deployed in 11 patients with immediate procedure reduction of MR in 8/11 patients to ≤ 1+, and in 2/11 MR was 2+ (91% with MR ≤ 2+). Single ACT were placed in the prolapsed mitral leaflet in the first 2 patients and both developed recurrent MR within 30 days treated with standard open mitral valve repair (SOR). Multiple ACT were deployed in the next 9 patients. Results at 30 days for patients with multiple ACT are: 3 patients MR ≤ 1+, 2 patients MR ≤ 2+ and 4 patients MR > 2+ (2 patients underwent SOR). To date, 3 patients have completed 12 months and 2 patients have completed 6 months follow-up; all 5 patients demonstrate stable results (no change in MR from 30 days).

**Conclusion:** In conclusion, the early results of off-pump, trans-apical placement of ACT with the Neochord instrument show early, acute surgical success (MR ≤ 1+) in 7/7 treated patients (91% had MR ≤ 2+), but recurrent MR developed in several patients. Use of multiple ACT to distribute tension on the leaflet has probably been helpful. Refinedin patient selection are expected to contribute to improved results as experience continues.