TCTAP A-164

Impact of Percutaneous Coronary Intervention on 12-month Chronologic Occlusion Outcomes in Patients with New Onset Heart Failure
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Background: Heart failure is known to be associated with increased adverse clinical outcomes in coronary artery diseases. The impact of percutaneous coronary intervention (PCI) on chronic total occlusion (CTO) in patients (pts) with new onset heart failure is not clear. We compared the 12-month clinical outcomes of pts treated by PCI with optimal medical therapy (OMT) for CTO lesions in pts with new onset heart failure (onset within 1 year).

Methods: A total of 458 consecutive CTO pts newly diagnosed with heart failure or showing symptoms of heart failure (NYHA ≥ class 2 or CCS ≥ class 2) were divided into 2 groups; one group underwent PCI (PCI group; n=246) and the other group was treated with OMT (OMT group; n=212). Major clinical outcomes were compared between the two groups up to 12 months.

Results: At baseline, the OMT group had a higher prevalence of elderly, cerebrovascular accidents, de novo lesion, left main disease, multivessel disease, multivessel CTO, RCA-CTO, and abundant collaterals (> grade 2), whereas the PCI group had a higher prevalence of male gender, prior MI, prior PTCa and LAD-CTO lesions. Clinical outcomes at 12 months were similar between the 2 groups except lower mortality in the PCI group (Table). After baseline adjustment by multivariate analysis, however, there was no difference between the 2 groups.

Conclusion: Despite the higher prevalence of characteristics in OMT group, the PCI group had similar long-term mortality as compared with OMT. However, PCI was associated with increased major adverse cardiac events as compared with OMT. Further subgroup analysis regarding to CTO and new onset heart failure is needed for further determination.

<table>
<thead>
<tr>
<th>Variable</th>
<th>PCI group (n=246)</th>
<th>OMT group (n=212)</th>
<th>P Value (Unadjusted)</th>
<th>P Value (Adjusted)</th>
<th>OR (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mortality</td>
<td>7 (2.8)</td>
<td>12 (5.7)</td>
<td>0.435 (0.22)</td>
<td>0.538 (0.28)</td>
<td>0.74 (0.40-1.37)</td>
</tr>
<tr>
<td>CTO death</td>
<td>2 (1.7)</td>
<td>4 (1.9)</td>
<td>0.859 (0.63)</td>
<td>0.779 (0.46-1.33)</td>
<td>0.87 (0.40-2.33)</td>
</tr>
<tr>
<td>Mortality with myocardial infarction</td>
<td>5 (2.8)</td>
<td>4 (1.9)</td>
<td>0.600 (0.37)</td>
<td>0.737 (0.38-1.43)</td>
<td>0.88 (0.40-2.27)</td>
</tr>
<tr>
<td>Qwave MI</td>
<td>4 (1.6)</td>
<td>2 (0.9)</td>
<td>0.694 (0.80)</td>
<td>0.879 (0.38-2.06)</td>
<td>0.87 (0.39-2.06)</td>
</tr>
<tr>
<td>Non Qwave MI</td>
<td>1 (0.4)</td>
<td>1 (0.5)</td>
<td>0.980 (0.98)</td>
<td>0.867 (0.39-2.01)</td>
<td>0.85 (0.39-2.01)</td>
</tr>
<tr>
<td>Renal insufficiency</td>
<td>23 (9.4)</td>
<td>18 (8.5)</td>
<td>0.633 (0.47)</td>
<td>0.735 (0.49-1.13)</td>
<td>0.73 (0.49-1.13)</td>
</tr>
</tbody>
</table>

Adjusted for gender, age, myocardial infarction, hyper tension, diabetes, chronic kidney disease, current smoker, multivessel disease, collateral vessel (grade 2), and failed CTO.

TCTAP A-165

Comparison in Cardiac Remodeling Between Surgical Treatment and Device Closure of Atrial Septal Defect
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Background: Atrial septal defect (ASD) is the 2nd most common congenital heart anomaly in adults. As treatment options, there are operative ASD closure (Surgery) and percutaneous device closure (Device). The aim of this study was to elucidate the cardiac remodeling after ASD closure and to compare the effects of Surgery and Device in similar ASD size.

Methods: Among patients who underwent ASD closure in Catholic medical school, St. Vincent’s Hospital from January 2004 to December 2012, 28 patients were enrolled. Transthoracic echocardiography (TTE) was performed before and after correction of the ASD in both Surgery and Device groups.

Results: Although there were significant differences in age and ASD size in both groups, after closing ASD, LV dimension increased in both groups, on the other hand, decrease in right atrium volume (RAVol) and maximum regurgitation velocity of tricuspid valve (TR Vmax) was noted. Aortic diameter and LV ejection fraction increased in Surgery group. Further subgroup analysis with ASD size of 13 to 24mm was analyzed to compare differences in cardiac remodeling between the two groups. There were coherent results of increase of LV dimension and reduction of TR Vmax and RAVol in both subgroups. However, RAVol reduction was more remarkable in Surgery than Device subgroup.

Conclusion: Although there was difference in baseline parameters between two groups, which may have affected the choice of treatment option, the parameters measured by TTE showed significant change in structural cardiac remodeling. By subgroup analysis regarding to ASD size, showed consistent improvements in cardiac geometry without significant difference between the groups. In conclusion, in selected cases of ASD, it is reasonable to treat percutaneously considering complication occurrence, post-procedural recovery, and hospital stay.

TCTAP A-166

Angiographic Characteristics and Clinical Outcomes of the Use of Dual Therapy Stent
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Background: A novel dual therapy stent (DTS) may improve clinical outcome due to a combination of sirolimus drug elution and endothelial progenitor cell technology for reduced restenosis and accelerated endothelisation. However clinical data remains limited on the use of this novel technology. We aim to report on the use of a novel DTS device in our centre.

Methods: All patients who underwent PCI with the Combo8® DTS in our centre were enrolled. All patients underwent diagnostic angiograms and PCI according to guideline recommended indications and techniques. Baseline clinical and angiographic characteristics were collected. Clinical outcomes for MACCE at 6 and 12 months were studied.

Results: Fifty three patients (83% male) of mean age 61.42 +/- 11.63 years were studied. 15.1% (n= 8), 24.5% (n= 13) and 60.4% (n= 32) were admitted for STEMI, ACS and Stable angina respectively. The prevalence of hypertension, hyperlipidaemia and diabetes mellitus were 88.7% (n=47), 75.5% (n=40) and 59.0% (n=27) respectively. 12.7% (n=7) had left main disease and 41.8% (n=23) had triple vessel disease. 69 Combo8® DTS with a mean diameter of 3.06 +/- 0.35 mm and a mean length of 22.07 +/- 5.55 mm were implanted. 50.7% (n= 20) were deployed in the LAD, LCx and RCA respectively. 4.3% (n= 3) were deployed in the left main artery and in bypass grafts respectively. There were 10.1% (n=9), 69.6% (n=48) and 20.3% (n=14) ACC/AHA angiographic type A, B and C lesions. 6 (8.7%) and 7 (10.1%) were CTO and bifurcation lesions respectively. Angiographic success rate was 100%. There were no cases of stent thrombosis or inhospital mortality.

Conclusion: The use of Combo® DTS was associated with excellent angiographic and short term clinical outcome in this study. We plan to report on 6 month clinical outcomes at the time of presentation.

TCTAP A-167

Bioabsorbable Vascular Scaffolds (BVS) Eluting with Everolimus: for Percutaneous Coronary Intervention (PCI) of Patients with De-novo Coronary Artery Lesion: Our Experiences at Apollo Hospitals Dhaka

Background: Aim of the study was to evaluate the primary procedural success of percutaneous coronary intervention (PCI) of de-novo coronary artery lesion by using BVS Absorb stents eluting with Evolimus.

Methods: Total 16 patients were enrolled in this very preliminary study of BVS absorb. Among them, Male: 11 and Female: 5. Total 20 stents were deployed. Mean age were for Male: 56 yrs, for Female: 60 yrs. Associated CAD risk factors were Dyslipidemia, High Blood pressure, Diabetes Mellitus, Positive FH for CAD and Smoking (all male).

Results: From the study group; 13 (81%) were Dyslipidemia, 10(62.5%) were hypertensive; 6 (37.5%) patients were Diabetic, FH 3(18.75%), and 2 (18%) were all male smoker. Female patients were more obese (BMI M 25; F 27) and there was significant difference in age and gender. A common stented territory was for LAD: 6 (37.5%), LCX 5 (25%), RCA 6 (37.5%). One patient had both LCX and LAD stenting. Total 3 patients had double/overlapping stent in RCA lesion. Territory wise distributions of BVS Absorb stent were for LAD 6(30%), RCA 9 (45%), and LCX 5 (25%).

Drug-eluting Stents
(TCTAP A-166 to TCTAP A-171)