Emergent Pericardiocentesis in Cath Lab-Review of Etiology at a Tertiary Care Referral Institute

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Background: Pericardiocentesis for collections causing pericardial tamponade continues to be frequently performed in cath lab, more so due to the complexity of lesions and hardware in use currently.

Methods: We attempted to analyse the etiology of serial cases requiring pericardial fluid aspiration between 2001 to 2013 at our Institute, a premier tertiary care referral centre in South India.

Results: Emergent Pericardiocentesis has been done for 158 patients in the Cath lab and 43 patients in the ED. Of these 104 patients went on to undergo pericardiectomy and restrictive cardiomyopathy was diagnosed in 3 patients. Cardiac tamponade caused by constrictive pericarditis was diagnosed in 6 patients, who subsequently underwent pericardiectomy.

Conclusion: Collections of infective origin seem to be the commonest (~35%) cause at our centre needing pericardiocentesis. Mitral valve procedural effusions leading to tamponade still continues to be accounted for 12~13% of total BMV procedures. Although complex coronary procedures are performed at our centre, only our centre needing pericardiocentesis. Constrictive pericarditis was diagnosed in 6 patients, who subsequently underwent pericardiectomy and restrictive cardiomyopathy was diagnosed in 3 patients.

Comparison of Short-term Clinical Outcomes with Prasugrel Versus Adjunctive Cilostazol to Dual Anti-platelet Therapy in Patients with Acute Myocardial Infarction Underwent Percutaneous Coronary Intervention

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Background: It has been well known that prasugrel and adjunctive cilostazol to dual anti-platelet therapy (triple anti-platelet therapy; TAP) could improve the clinical outcomes in patients with acute myocardial infarction (AMI) underwent percutaneous coronary intervention (PCI). However, the data about comparison of clinical outcomes between two groups were not available yet. Therefore, We compared the short-term clinical outcomes between prasugrel and TAP in patients with AMI underwent PCI.

Methods: We analyzed 1,192 AMI patients underwent PCI with receiving Prasugrel or TAP in ERCST AMI registry from 15 centers in Korea between Jan 2012 and Jun 2013. Of these, 412 patients received the prasugrel and 780 patients did TAP during hospitalization. Major adverse cardiovascular events (MACE) defined as a composite of cardiac death, MI, stroke or death from cardiovascular disease (CVD) occurred after 30 days after PCI.

Results: Mean age was lower (57.3±10.19 years vs. 65.99±12.25 years, p<0.001) and creatinine clearance (93.7±38.61 ml/min vs. 71.84±38.72 ml/min, p<0.001) was higher in prasugrel group than TAP group. Female gender (14.6% vs. 32.4%, p<0.001), the history of hypertension (40.8% vs. 55.3%, p<0.001), diabetes (22.3% vs. 35.6%, p<0.001) and previous cerebrovascular accidents (1.7% vs. 9.6%, p<0.001) were more common in TAP group, however, prasugrel group was more common in presented with STEMI (63.5% vs. 48.5%, p<0.001), current smoker (55.6% vs. 34.9%, p<0.001) and the family history of coronary artery disease (8.7% vs. 5.1%, p=0.015). P2Y12 reactivity unit by VerifyNow P2Y12 assay was significantly higher in the prasugrel group than TAP group (138.60±16.75 vs. 257.43±84.40, p<0.001). During hospitalization, there were no differences in the incidences of cardiac death, MI, stroke and MACE between prasugrel and TAP group (1.9% vs. 2.1%, p=0.898; 0.7% vs. 1.2%, p=0.560; 0.5% vs. 1.2%, p=0.348; 3.2% vs. 3.9%, p=0.543). Also, no differences in major and minor bleeding were observed (1.7% vs. 2.6%, p=0.318; 2.2% vs. 3.1%, p=0.675; 0.8% vs. 1.6%, p=0.356). The incidences of 6-month TVR and MACE were not also significantly different between two groups (2.2% vs. 1.3%, p=0.631; 4.3% vs. 2.9%, p=0.513).

Conclusion: Our study showed that prasugrel may have similar safety and efficacy to TAP with patients with AMI underwent PCI. However, further large and randomized trials should be needed to accurately assess the clinical benefit of prasugrel in Korean AMI patients.

Antiplatelet Agents and Anticoagulants (TCTAP A-143 to TCTAP A-145)

TCTAP A-143

Comparison of Original and Generic Enoxaparin for Treatment of Coronary Artery Disease Patients Undergoing Percutaneous Coronary Intervention

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Background: To compare the anti-factor Xa level and major adverse cardiac events (MACE) in coronary artery disease patients undergoing percutaneous coronary intervention who was treatment with original enoxaparin and generic enoxaparin.

Methods: This study is a randomized double blind controlled trial studied in coronary artery disease patients (unstable angina, non-ST elevation myocardial infarction, chronic stable angina) who underwent percutaneous coronary intervention in our institute between January and August 2010. The coronary artery disease patients were randomly assigned to receive either original or generic enoxaparin before the percutaneous coronary intervention. Anti-factor Xa level were measured before and at 1 and 4 hours after percutaneous coronary intervention. Major adverse cardiac events were monitored during admission and at 3 month after the procedure.

Results: Thirty patients received generic enoxaparin, while 36 patients received original enoxaparin. The mean age of the two groups were 65.5± 5.5 and 64.2 ± 4.5 years respectively. The baseline characteristics of two groups were comparable except for type of stent. The drug eluting stents were used more in generic enoxaparin group compared to original enoxaparin group (70.0% and 56.0%). There was no significant difference of anti-factor Xa level at 1 hour (1.20 vs 1.43, p-value <0.126) and 4 hours after PCI (0.87 vs. 0.76, p-value >0.77-0.97). p-value >0.77-0.97. p-value >0.77-0.97. During PCI, there were two patients (6.7%) who had thrombus formation during the intervention and there were 3 (10.0%) of major adverse cardiac events (2 patients (6.7%) had nonfatal myocardial infarction and 1 patient (3.3%) had restenosis requiring revascularization), while in the original enoxaparin group, there were no patients who had thrombus formation during the intervention (p-value = 0.202) and no one had major adverse cardiac events (p-value = 0.089).

Conclusion: Anti-factor Xa level was not significant different between those who received generic or original enoxaparin. However, MACE tended to be higher in the