ABSTRACTS

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Background: To our knowledge KFAFH cardiac department is one of the few centers performing aortic arch surgery in Saudi Arabia. The optimal strategy for management of the circulation during aortic arch surgery remains controversial and neurologic dysfunction due to cerebral ischemia remains a significant concern. We report our early experience on aortic arch surgery performed with Deep or Moderate Hypothermic Circulatory Arrest (DHCA or MHCA) and Antegrade Selective brain Perfusion (SAP).

Patients and methods: 14 consecutive patients (pts) underwent aortic arch repair between 2008 and 2012. 4 pts were operated on emergency basis because of type A aortic dissection or impending rupture, 10 pts on elective basis. 5 pts (35.7%) had complete arch replacement and 9 pts (64.3%) had emiarch repair. Axillary cannulation was performed in 12 pts (85.7%), femoral cannulation in 2 pts (14.3%). Our brain protection strategy consisted of Deep or Moderate Hypothermic Circulatory Arrest (DHCA or MHCA) in 11 pts (78.6%), MHCA (23–25 C) in 2 pts (14.3%). Selective monolateral antegrade perfusion was performed in 12 pts (85.7%), selective bilateral antegrade perfusion in 3 pts (21.4%). Selective monolateral antegrade perfusion (uSAP) trough axillary artery was performed in 12 pts (85.7%), selective bilateral antegrade perfusion (bSAP) in 2 pts (14.3%). Mean circulatory arrest was 29 ± 15 min. Cerebral oximetry has been employed to monitoring brain perfusion.

Results: In-hospital mortality rate was 0, no pt had permanent neurological deficit. 1 pt (7.1%) had a temporary neurological deficit, 2 pts renal impairment (21.4%), 1 pt vocal cord paralysis (7.1%), 3 pts bleeding (21.4%). Temperature was not identified as independent predictor of transient neurological deficit (p < 0.5). MHCA was significantly associated to reduced blood loss after surgery (p < 0.01). Mean follow-up (22 months): no pt died, 1 pt presented aortic pseudoaneurysm 6 months after surgery (Marfan syndrome with aortic dissection).

Conclusion: Early KFAFH experience on aortic arch surgery has been performed with very good outcome. HCA arrest with SAP represents a very effective technique of brain protection. For short circulatory arrest time MHCA is safe and can reduce coagulopathy problems related to DHCA.

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Monitoring of antiaggregation therapy effectiveness inpatients with acute stemi: Is it really necessary in clinical practice?

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Introduction: Antiaggregation therapy is the keystone of acute ST elevation myocardial infarction (STEMI) drug treatment; but effectiveness of this therapy is not always sufficient. The aim of the study was to determine whether laboratory monitoring of antiaggregation therapy helps to improve the management of patients with acute STEMI.

Material and methods: A pilot prospective study in patients with acute STEMI treated with direct percutaneous coronary intervention (dPCI) of culprit lesion. Optic aggregometry was chosen to assess the effectiveness of antiaggregation treatment. Samples were taken prior to coronaryangiography (sample 1) as well as at first day after diagnostic procedure (sample 2). MACE (in-stent thrombosis, heart failure, in hospital death, all cases mortality, ventricular arrhythmia, needs of repeat revascularization) were sequently monitored. Study group included 22 patients (average age 66 years, 11 men, 11 women), from whom 14 had recieved clopidogrel loding dose and 8 had recieved prasugrel loding dose.

Results: In clopidogrel group 11 patients did not reach effective drug activity in first sample and 3 patients did not reach effective drug activity in second sample. While in prasugrel group ineffective antiaggregation was seen just in 1 patient in first sample. In patients with clopidogrel treatment more MACE developed in followed period (13 vs. 6).

Conclusion: Our results show that optic aggregometry seems to be a usefull laboratory method for antiaggre- 
gation drugs effectiveness assessment. Prasugrel treatment seems to be more effective than clopidogrel administration in patients with acute STEMI treated with direct percutaneous coronary intervention.

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Effectiveness of intraarterial nitrate for transradial coronary angiography

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Background: Transradial access is a well established approach for coronary angiography and percutaneous coronary intervention. However a major pitfall is radial artery vasospasm, for which several pharmacological agents are being considered. We have used 100 microgram intra-arterial glycerine trinitrate (GTN) only to counter this problem.

Method: A study was done in Bangabandhu Sheikh Mujib Medical University (BSMMU), Dhaka, Bangladesh and Apollo Hospital, Hyderabad, India from January 2102 to June 2012. Total 80 patients (40 patient in GTN group and 40 patients in GTN + Diltiazem group) were included for CAG ± PCI. Patients were randomized into 2 groups to compare intraarterial GTN and a combination of GTN+Diltiazem. Radial artery spasm and patient comfort were assessed in both groups.

Results: Radial artery spasm leading to femoral access was statistically insignificant comparing both groups. None of the patients in GTN group had pain or burning sensation during administration, whereas the cocktail group (GTN + Diltiazem) had some discomfort

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