in the form of pain and burning sensation despite aspirating blood and thorough mixture of blood with GTN and Deltiazem. Radial artery spasm rate was almost similar in both group (2 vs 1 out of 40 in each group respectively). Total procedure time from vascular access to sheath removal was almost similar in both groups (15.41 ± 1.3 min vs 14.85 ± 1.6 min) and total fluoroscopy time in GTN group was 3.1 ± 1.6 min and in GTN with diltiazem group was 2.9 ± 4.6 min.

Conclusion: Intraarterial GTN alone is a safe and equally effective arterial dilator for transradial coronary angiography compared to combined GTN and diltiazem.

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ST Elevation myocardial infarction in young adults: Prevalence, demographics, risk factor profile and early outcome after primary percutaneous coronary intervention

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Objectives: We sought to investigate prevalence, clinical profile, in-hospital and long term clinical outcomes of Primary Percutaneous Coronary Intervention in young adults presenting with Acute MI.

Methods: Total of 95 patients ≤40 years were enrolled in retrospective data analysis. Prevalence, risk factor profile and demographics were analyzed. Procedural success, in-hospital and short-term (1 month) outcomes were assessed as primary end points. Secondary end-points were recurrent MI and new revascularization.

Results: Mean age was 36 ± 14 years (range 19–40); 97% males and 3% females. 59(62%) patients presented with anterior wall MI, 36(38%) with inferior wall MI; 5% had infarction in other territories. 51% patients were Saudis and 49% were non-Saudis. Risk factor profile revealed: Smoking (76%), Diabetes Mellitus (22%), Hypertension (20%), Dyslipidemia (12%), Family History (12%). 3 patients had cardiogenic shock at presentation. All underwent PPCI, with door to balloon time of 83 ± 05 min (74–220 min). Majority had SVD (47%). 2VD and 3VD was seen in 33% and 18% respectively. (Infarct related artery: LAD 54%, RCA 23%, LCX 12% and Left Main Disease 2%). DES was deployed in 89%. Successful recanalisation of IRA was achieved in 95% with 87% achieving TIMI III flow. No reflow occurred in 2%. Procedure related coronary artery dissection occurred in 1 patient. 6% developed Ventricular Tachycardia, 2 patients developed complete heart block. In-hospital mortality was 3%. 1 patient had acute stent thrombosis and 4 patients presented with subacute and late stent thrombosis on follow up. All patients were alive at one-month follow up.

Conclusions: Our data reveal that younger patients, predominantly males comprise a significant proportion of patients of STEMI. Smoking appears to be a prominent risk factor. Such patients have a favorable outcome after Primary PCI. High incidence of stent thrombosis in our cohort of patients needs further assessment.

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Tailored management approach for critically sick children and late presenters with congenital heart disease

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Background and objectives: Re-conditioning before cardiac surgery in critically sick children is often needed. We report our experience using tailored management approach in these patients.

Methods and patients: The charts of patients with CHD who judged to have high operative risk were reviewed. Included were patients with: large left to right shunt and ventilation for longer than 2 months, significant left to right shunts at multiple levels combined with malnutrition or recent infection, severely impaired cardiac function needing inotropic support and antifailure medications, recent.

RSV infection, severe malnutrition (body weight <5th centile), and critically sick patients during early postoperative course. Excluded were patients with: significant left to right shunts, presented early, with minor growth retardation, and without recent active infection.

Results: Six patients were included. The median age was 13 months (2–48 months) and median weight was 4.6 kg (2.3–12.6 kg). Two patients had multiple left to right shunts and ventilator dependency. One with huge VSD presented at four years of age. Another with low body weight, large VSD and impaired LV function. Two more with early postoperative complications and ventilator dependency.

In the first category, staged approach was essential. This was done by transcatheter closure of the PDA, followed by pulmonary artery banding. This approach lead to extubation. After proper nutrition, total correction was done. The patient who presented at four years of age underwent banding of PA, later surgical repair of VSD. Because of long postoperative ICU stay, he needed percutaneous closure of his residual VSD and then discharged. The patient with large muscular VSD and impaired LV function underwent percutaneous VSD closure with good result despite low weight (4.2 kg). The last two patients; one needed balloon dilation of residual coarctation, the other because of severe obstruction to his bilateral Glenn anastomosis, underwent stenting of these stenosis. Both had good result.

Conclusions: In severely sick children and late presenter with multiple shunts, a tailored management
including therapeutic catheterization and supportive measures are essential before cardiac surgery. Catheterization and possible intervention should be considered early during postoperative phase in severely sick patients.

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Abstract on percutaneous coronary intervention in different anomalous coronary arteries—an observational study


Aims: Anomalous coronary arteries are uncommon but clinically significant, depending upon its ostial origin, course and distribution, such patient may be asymptomatic or may present with angina, acute myocardial infarction, arrhythmias, syncope and sudden cardiac death. Our aim is, to show the feasibility of percutaneous coronary intervention in those anomalous coronary arteries and also to assess the selection of hardware in those particular cases.

Methods and results: Since January 2002 we have done 3110 PCI cases in NICVD and other cardiac centers in Dhaka. Out of which total twenty-one cases of PCI were performed in different varieties of anomalous coronary artery. Among those twenty-one cases, seven cases were PCI to high take off origin of RCA (33%), six cases were PCI to RCA of posterior origin (28%), three cases were PCI to RCA arising from left sinus of valsalva (14%), single case each for PCI to LCX as proximal branch of RCA (4.76%), PCI to LCX arises from right sinus of valsalva (4.76%), PCI to LAD arising separately from LSV (4.76%), PCI to LCX arising separately from LSV (4.76%), PCI to RCA where RCA and LM arising from RSV as a single stem (4.76%). We report here successful PCI in 20 (95%) cases having eight varieties of anomalous coronary artery with failure in one case (4.76%).

Conclusion: PCI in anomalous coronary arteries is a feasible therapeutic strategy with excellent clinical results. Selection of appropriate guiding catheter and other equipment is essential to the technical success of the procedure. Since these cases are rare, the reported experience of other practitioners may provide helpful tips.

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Comparison of clinical outcomes among patients undergoing CABG with or without prior PCI

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Introduction: There are increasing numbers of patients who are referred for coronary artery bypass grafting (CABG) after prior percutaneous coronary intervention (PCI) due to in stent thrombosis or other coronary complications. The intent here is to characterize the risk, if any, that is associated with a prior PCI experience.

Objectives: To compare clinical outcomes between patients undergoing CABG with or without previous PCI.

Methods: This is a retrospective chart review study. Two hundred seventy eight patients underwent CABG at KING FAHAD MEDICAL CITY, KSA between January 2009 to December 2010, of whom, 60 patients had prior PCI and 218 without a previous PCI. Primary outcome measures included post CABG survival, hospital stay, post CABG inraaortic balloon, myocardial infarction, or repeat revascularization. Statistical analysis was pursued using the t-test /Wilcoxon and multiple linear regression analysis test for the continuous outcomes and the chi-square/Fisher exact test and logistic regression analysis for dichotomous outcomes. SAS version 9.3; Carey, NC, USA was used for statistical analysis.

Results: Overall there were 278 patients (60 in the CABG plus prior PCI group and 218 in the CABG alone group). All patients were followed up to 2 year post-CABG. All pre-CABG demographic and clinical characteristics were similar between the two groups. Overall, mean age was 59.3 years (median = 59 years); 54 (20%) females and both age and gender distributions were similar between the two groups. Mortality in the CABG alone group occurred in 6/218 patients (2.8%) compared to 2/60 (3.3%) in the CABG with prior PCI group (p = 0.8). Sixty six (30.3%) on the CABG alone group had recent MI vs. 29/60 (49.2%) in the CABG with prior PCI, p value = 0.007. Mean + sd of hospital stay was 11.8 + 12 days on the CABG alone group vs. 13.7 + 11.6 days on the CABG with prior PCI, p value = 0.27. Postoperative need of inraaortic balloon occurred among 7 (11.62%) cases in the CABG alone group and among 3 cases (5.5%) in the CABG with prior PCI group, p value = 0.33.

Conclusions: Although the incidence of recent MI differed significantly between the two groups, no apparent differences were detected in terms of mortality, hospital stay and need for inraaortic balloon. Prospective studies as well increasing the sample size and extended follow-up are further required to validate the results.

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Outcome of coronary artery bypass in patients with child-pugh class a liver cirrhosis