in the form of pain and burning sensation despite aspirating blood and thorough mixture of blood with GTN and Diltiazem. 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 was 2.9 ± 4.6 min.

**Conclusion:** Intracorartial 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 inferolateral 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 PCI, 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...