

the level of known risk factors of CVD. Nevertheless, mobile screening unit is a good method for increasing the awareness of the public.

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### Two years follow up of patients who underwent trans-catheter aortic valve implantation at Prince Sultan Cardiac Center (TAVI)

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**Objectives:** We report our two years clinical, and echo follow up of patients who underwent trans-apical and trans-femoral TAVI.

**Methods:** All patients who underwent TAVI therapy have been followed at six, 12, and 24 months, where clinical, and echo evaluation have been obtained.

**Results:** Sixty-six pat were operated, with mean age of  $78.7 \pm 9.3$  y, 53% females, and 47% males. The mean logistic Euro score was  $21 \pm 8$ . 55% of pat completed 2 years follow-up. Fourty-two pat received Edward Sapien valve (25 trsna-apical, and 17 trans-femoral ), and 24 pat received core valve. Thirty days mortality in Sapien valve group was 11%, and 0% in Core valve group. CVA developed in 8% of the core valve group, and 7% of the Sapien valve group. Complete heart block developed in 37.5 of Core group, and 4.8% of the sapien group. Peripheral arterial complications occurred in 12.5% of Core patients, and 5.8% of Sapien patients. On follow up, patient's symptoms improved. The PG decreased from  $88 \pm 22$  mmHg to  $19 \pm 7$  mmHg,  $P < 0.0001$ , and the mitral regurgitation (MR) severity grade decreased from  $1.6 \pm 1.1$  to  $0.9 \pm 0.6$ ,  $P < 0.001$ . Paravalvular leak was mild in 15.2%, and moderate in 6.1% of patients.

**Conclusion:** TAVI is promising technique in treating patients with severe AS with acceptable mortality rate. There was significant improvement in patient's symptoms, reduction in aortic gradient and reduction in MR severity.

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### Routine invasive versus ischemia-guided strategy in patients with acute inferior ST-elevation myocardial infarction who received fibrinolytic therapy: A prospective randomized controlled pilot trial

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**Aims:** We sought to compare a routine invasive strategy of early coronary angiography and intended revascularization, with an ischemia-guided strategy in patients with acute inferior ST elevation myocardial infarction (STEMI) who received fibrinolytic therapy.

**Methods:** We enrolled 60 consecutive patients with acute inferior STEMI who received fibrinolytic therapy within 6 h. Patients were randomly assigned to either a routine invasive strategy in which coronary angiography was performed within 48 h with intended revascularization if eligible (Group A), or an ischemia-guided strategy in which catheterization was based on the presence of myocardial ischemia and viability as demonstrated by stress myocardial perfusion imaging (Group B). Patients were prospectively followed up for 6 months. The primary endpoint was a composite of cardiac death, recurrent myocardial infarction, recurrent ischemia or stroke at 6-month follow-up. Total costs per patient were calculated over 6 months.

**Results:** The mean age of the whole series was  $52 \pm 9.8$  years (15% females). The primary endpoint occurred more frequently in group A as compared to group B, however, the difference did not meet statistical significance (36.7% versus 23.3%, respectively,  $p > 0.05$ ). The mean cost per patient at 6-month follow-up was significantly higher in Group A as compared to that in Group B ( $\$4953.5 \pm 3108.5$  versus  $\$2764.6 \pm 2636.7$ , respectively,  $p < 0.01$ ).

**Conclusions:** In patients presenting with inferior STEMI who received fibrinolytic therapy, a routine invasive strategy with early coronary angiography and intended revascularization, achieved a clinical outcome similar to an ischemia-guided strategy; yet, at a significantly higher cost.

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### Impact of chylothorax on the post operative outcome after pediatric cardiovascular surgery

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**Background:** Chylothorax is the accumulation of chyle in the pleural cavity, usually develops after disruption of the thoracic duct along its intra-thoracic route. In the majority of cases this rupture is secondary to trauma (including cardio thoracic surgeries). Chylothorax is a potentially serious complication after cardiovascular surgeries that require early diagnosis and adequate management.

**Methods:** A retrospective study of all cases complicated with chylothorax after pediatric cardiac surgery in King Abdulaziz Cardiac Center between January 2007 and December 2009 was conducted. The study aim to determine the risk factors, and the impact on the post operative course.

**Results:** We have 1135 cases operated during the study period, 57 cases (5%) were complicated with chylothorax in the post operative period. The most common surgeries complicated with chylothorax were the single ventricle repair surgeries (Glenn-Fontan) 15 cases (27%), followed by the arch repair cases 10 cases (18%), the ventricular septal defect cases 10 cases (18%), the

Atrioventricular septal defect cases 7 cases (12%), the arterial switch cases 6 cases (11%), and others 8 cases (14%). The ICU stay, the length of hospital stay and the bypass time were significantly longer in the chylothorax group, also the ventilation time, the inotropes duration and number were higher in the chylothorax group.

**Conclusion:** Chylothorax after pediatric open heart surgery is not an uncommon complication, it occurs more commonly with single ventricle repair and aortic arch repair surgeries, it has a significant impact on the post operative course and post operative morbidity.

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### Is there an optimal intensive care management? Following release of obstruction in neonates with critical PS/ATR & IVS

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Neonates with critical pulmonary stenosis or complete pulmonary atresia and intact interventricular septum represent wide range of pathological findings in term of magnitude of hypoplasia of the different right ventricular components.

Although available range of imaging modalities enabled paediatric cardiologist to delineate, who would benefit from interventional or surgical release of critical pulmonary stenosis/atresia. The post interventional or and after surgical release of critical pulmonary stenosis/atresia challenges the paediatric cardiac intensivist with various spectrum of pathophysiological status.

Empirically we noticed that some neonates recover and discharged from the intensive care unit in 2-3 days, while others require longer intensive care management and quite good number will stay in the ICU much longer on prostaglandin infusion and may require further intervention such as balloon atrial septostomy, shunt or implantation of PDA stent.

We have retrospectively evaluated these patients in relation to pre and post operative/interventional pathology/pathophysiology, age and general status of patients before and after procedures and highlighting the intensive care physical and pharmacological actions.

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### Comparison of femoral closure devices with manual compression in postcardiac catheterization patients

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**Objective:** The objective of our study was to compare femoral closure devices to manual compression in limiting vascular access complications at our center.

**Methods:** Data was obtained from computer database for cardiac catheterizations done at University of Florida, Jacksonville from 1st March 2002 to 29th February 2004. Vascular complications included groin bleeding, hematoma (> 4 cm), retroperitoneal bleeding, AV fistula, limb ischemia, pseudoaneurysm, infection and death as a direct result of vascular complication. Hemostasis technique was divided into three groups; Manual compression, Sealant and Suture group.

**Results:** A total number of 3843 cases were performed and all variables were similarly distributed among three groups except for lesser GpIIb/IIIa inhibitor use in sealant group. A total of 71 complications (1.85%) were recorded. They included 33 bleeds, 12 Pseudoaneurysms, 17 hematomas (> 4 cm), 4 retroperitoneal bleeds, 2 AV fistulae, 1 infection and 2 deaths. Overall, 9 complications occurred in Sealant group (0.85%), 4 in Suture group (3.3%) and 58 (2.1%) in manual compression. Logistic regression analysis showed that when GpIIb/IIIa agents are not used, Sealant device is associated with less vascular complications. (p = 0.008) However, with GpIIb/IIIa agents there is no difference among closure devices or manual compression (p = 0.074) with overall increase in vascular complications.

**Conclusions:** Sealant closure devices are associated with less vascular complications at our center when GpIIb/IIIa agents were not used. However, with GpIIb/IIIa inhibitors, there is no difference in the vascular complications among the three groups.

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### Does negative calcium score exclude coronary artery disease

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**Aim:** We aimed to measure the coronary calcification and investigate if negative coronary calcification excludes coronary artery disease (CAD).

**Methods:** Clinically indicated patients were scanned using 64 slice CCT to measure Agatston coronary calcification score. CT coronary angiography (CTA) was performed, and invasive coronary angiography (CA) was performed when it is indicated.

**Results:** 2352 patients were scanned. 1152 patients had negative calcium score (49%). The mean age was  $52 \pm 13.2$  y, 65% males, & 35% females. Chest pain was the indication in 80% of cases. There was 37% diabetic, 58% hypertensive, 23.6% hyperlipidemic, 13% smoker, & 32% with family history of CAD.

The calcium score excludes CAD in 90% of patients as confirmed by normal coronary CTA. In 10% of patients who had negative calcium, coronary plaques were found by CTA. CA was performed in 50% of those with negative