

opened in the RA or RV. Adequacy of closure of the defects, and absence of TR or MR or LVOT gradient were ensured before unscrewing the rail to release the occluders.

Results: The procedure was successful in 15 out of 18 ASD's and all VSD's. Average operative time was 35 Minutes, 16 patients were extubated within 6 hrs of surgery and only 2 patients needed 1 unit of blood transfusion. The average Incision length in ASD cases was 5 cm.

In maximum follow up of 6 months, 1 patient with VSD and severe PAH, had moderate TR, No other complications noted. All patients were put on Aspirin for 6 months.

Conclusion: We believe this non cath lab based technique using Echo guidance will find widespread acceptance in countries in Africa and centers without cardiac cath lab and using only Operating theatre with CPB as backup. The technique has also inherent advantages in terms of patient safety, non requirement of blood transfusion, absence of sternotomy incision and no radiation.

Congenital coronary artery to pulmonary artery fistula: An unseen Villain

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Background: Coronary artery fistula (CAF) is an anomalous connection between a coronary artery and a major vessel or cardiac chamber. Most of the coronary fistulas are discovered incidentally during angiographic evaluation for coronary artery disease. Here we report the findings of 11 coronary to pulmonary artery (PA) fistula.

Methods: Over a period of two years eleven patients undergoing coronary angiogram for suspected CAD were incidentally identified to have coronary to pulmonary artery fistula. All patients were symptomatic during the study period.

Results: Mean age of the patients was 56 ± 7.7 years. Among 11 subjects 6 were males (54%) and 5 were females (46%). 4 had hypertension and 3 had diabetes. Chest pain was the predominant symptom in 70% of the patients followed by easy fatigability, giddiness and syncope. 3 patients (27%) has ST-T changes on electrocardiogram and 4 (36%) were found to have evidence of provokable ischemia on non-invasive stress test. 8 out of 11 fistulas were found to be originating from LAD, 1 from LCX, 1 from RCA and 1 from both LAD and RCA. Majority 9 (72%) had normal coronaries, 2 (18%) had significant CAD and 1 (10%) had myocardial bridging of LAD. 10 out of 11 responded to conservative management while one patient underwent surgical closure of fistula and coronary artery bypass surgery.

Conclusion: Coronary to PA fistula is not so uncommon entity. Physiologically, a fistula behaves like a left to right shunt in the coronary circulation. Thus angina is aggravated by the associated CAF by means of coronary steal phenomenon. Prompt identification and treatment of this entity is the main stay in work up of patients with CAD.

Short term operative outcomes in tetralogy of fallot repair and its variables

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Background: Although the anatomic and physiologic abnormalities in tetralogy of fallot can be surgically repaired with excellent early outcomes, residual problems and sequel still persist in the majority of these patients. The study was done to evaluate various anomalies associated with tetralogy of fallot, type of repair done, periprocedure complications and outcome in such cases.

Methods: The study was a single centre, all-comers prospective open label study in which information was collected from patient's records including demographics, operative details, electrocardiogram and transthoracic echocardiogram as well as data on subsequent hospitalization and reintervention.

Results: 406 patients were studied of which classical TOF was diagnosed in 382 patients, pulmonary atresia in 17 patients and TOF with absent pulmonary valve in 7 patients. 234 patients underwent RVOT patch, 155 for TAP and 17 patients had RV-PA conduit done. MAPCA's were found in 6 (15.8%) patients <2 year of age, 49 (32.9%) patients in 2-5 year age group and 100 (45.7%) patients in >5 year age with p-value <0.001. Post surgery RV dysfunction developed in 23 patients (5.66%) and arrhythmias in 13 patients (3.20%) in the recovery phase. 30 patients (7.3%) underwent reintervention in catheterization laboratory while 12 patients (2.96%) had surgical reintervention. 21 patients (5.17%) expired due to post procedure complications.

Conclusion: Improved surgical techniques have significantly reduced mortality in TOF repair. Many challenges arising from complications in postoperative period still remain. It is imperative to improve postoperative care to further improve natural history in repaired TOF patients.

Incidence of aortopulmonary collaterals in patients of Tetralogy of Fallot with pulmonary atresia & correlation with pulmonary artery anatomy

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Background: Because of the wide variability of pulmonary blood supply, diagnosis and management of tetralogy of Fallot (TOF) with pulmonary atresia (PA)/ severe pulmonary stenosis (PS) (amounting to atresia) is more difficult than that of classical TOF. This study sought to define the incidence and implications of major aortopulmonary collaterals (MAPCAs) in patients with TOF/PA/ severe PS and to correlate it with complex pulmonary artery morphology.

Methods: From June 2011 to March 2013, 100 patients 0-15 year's age having TOF/PA/severe PS were included. Patients who underwent shunt procedure were excluded. Echocardiography, CT pulmonary angiography was performed to define the pulmonary artery size, morphology and MAPCAs. Cardiac catheterization was performed when required.

Results: MAPCAs were present in 56 (56%) patients; while absent in the remaining 44 (44%) patients. 31 (31%) patients had hypoplastic LPA (left pulmonary artery), 27 (87%) out of 31 patients with hypoplastic LPA had presence of significant MAPCAs, only 4 (13%) patients had MAPCAs absent. Patients with hypoplastic RPA (right pulmonary artery) were 46 (46%). 40 (87%) out of these 46 patients