undergoing redo CABG from January 1998 through July 2014. The effect of time on the prevalence of redo CABG cases and prior PCI, and the preoperative patient's characteristics on postoperative early outcomes were analyzed. Patients were divided into two groups based on the period of performance of redo CABG. Group 1: January 1998 through December 2004 (n=114) and group 2 : January 2005 through July 2014 (n= 95). Redo CABG was performed using on-pump technique in 159 patients (group 1:107 pts and group 2:52 pts) , and off-technique in 50 patients (group 1 :7, group 2: 43 patients).
Results: Prevalence of redo CABG decreased from 4.6% in group 1 to 1.36% in group 2 (P= 0.000). Prevalence of PCI to redo CABG was significantly increased from 10.5% in group 1 to 34.7% in group 2 (p= 0.000). ITA usage was more in group 1 than group 2 (71.9% vs 57.4%) (p= 0.033). The number of patients with advanced age, left ventricular dysfunction and renal insufficiency had increased in group 2. In hospital mortality did not change between the groups (6 pts vs 2 pts : p= 0.236) but the incidence of post-operative low cardiac output syndrome requiring IABP support has decreased 4 pts vs 2 pts : p= 0.691) in the later part of our study.
Conclusions: Surgical coronary revascularization has evolved during the past one and half decades with redo CABG uncommonly performed in contemporary practice. Despite treating patients with more complex coronary artery disease and greater medical co-morbidities, there is a significant reduction in operative morbidity and mortality.

The Intra/extracardiac Fenestrated Fontan Procedure

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Background: The Fontan/Kreutzer operation for patients with a functional single ventricle has undergone major technical modifications since its introduction in the early 1970's. The latter modification, the intra/extracardiac fenestrated Fontan procedure, combines the advantages of the extracardiac conduit and the lateral tunnel and has fewer disadvantages. Advantages of the intra/extracardiac fenestrated Fontan include less risk of injury to the crista terminals reducing the risk of atrial arrhythmias and easy access for fenestration. The ring-supported conduit can be placed working through a standard atrial incision parallel to the AV groove, avoiding injury to the sinus node, the sinus node artery, and the crista terminalis. A 4 mm fenestration is punched in the short intra-atrial segment of the conduit and suture attaches the atriotomy incision to the margins of the conduit. An inverted T incision is made at the bidirectional Glenn shunt anastomosis extending into the right and left pulmonary artery as well as the superior vena cava. The beveled superior end of the conduit is sutured to the pulmonary arteries and cava using a continuous suture.
Methods and results: We report the anatomic and hemodynamic outcomes in our first 11 patients undergoing the intra/extracardiac fenestrated Fontan procedure at our institute. Diagnosis included double outlet right ventricle with or without other cardiac anomalies, double inlet left ventricle, tricuspid atresia, and hypoplastic left heart syndrome. Two patients had heterotaxy syndrome. Mean age and weight at time of operation was 34.9 months and 12.8 kg, respectively. Mean cardiopulmonary bypass time was 105 minutes and mean cross-clamp time was 58 minutes. End ventricular diastolic pressure (EDP) were similar pre- and post-Fontan procedure, 10.6 mmHg and 10.7 mmHg respectively. Mean atrial pressure was higher post-Fontan (8.1 mmHg and 10.7 mmHg, respectively.) Mean pulmonary artery pressure (MPAP) was higher post-Fontan (12.9 mmHg and 14.0 mmHg respectively). Transpulmonary gradient (TPG) was less post-Fontan procedure (4.8 mm Hg and 3.3 mmHg, respectively.) Chest tubes were removed at a mean of 6.9 days. No patient had more than mild AV valve regurgitation. Two patients had junctional rhythm within the first 2 weeks after surgery, but only 1 had junctional rhythm later than 2 weeks after surgery.

Pulmonary Endarterectomy for CTEPH

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Background: CTEPH is sequel of acute pulmonary embolism and afflicts 1%-4% of the patients who have had a pulmonary embolic episode. The disease is progressive and carries a dismal prognosis.
Methods: Eleven patients underwent Pulmonary endarterectomy (PEA) for CTEPH. All patients underwent echocardiogram, right heart catheterization and CT pulmonary angiography to confirm the diagnosis and establish surgical candidacy.

Ten patients were in NYHA class III and one patient was NYHA class II. The mean PA pressures ranged from 35 to 60mm of Hg, PVR varied from 700 to 1600 dynes/-s-cm5.Five patients had Type I disease and remaining had Type II disease.

All patients underwent bilateral pulmonary thromboendarterectomy on CPB with two periods of deep hypothermic deep circulatory arrest. All patients were electively ventilated overnight.
Results: There was no perioperative mortality The mean PA pressures postoperatively varied from 25 to 35 mm of Hg and PVR was below 500 in all patients. The patients after surgery are in NYHA class I/II and significant improvement in their walk distance and Quality of life.
Conclusion: PEA offers good symptomatic relief to patients of CTEPH and carries low morbidity and mortality in our experience.

Role of ambrisentan in the management of pulmonary arterial hypertension in patients with valvular heart disease undergoing cardiacsurgery

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Background: Presence of severe pulmonary arterial hypertension (PAH) in patients undergoing open valve replacement/repair surgery is a marker of increased morbidity and mortality in the post operative period. Endothelin antagonists have been shown to be effective in reducing pulmonary pressures in a variety of cases. However, their efficacy in secondary PAH is not well studied.
Methods: Patients undergoing valve surgery with pre-operative severe PAH (peak PA systolic pressures >60 mm Hg) were given ambrisentan 5mg once a day, starting a week before surgery and continued post-operatively. Pulmonary Artery pressures and indices of ventricular function were recorded pre-operatively, at discharge and at 3rd month follow up and compared to similar surgical patients not given ambrisentan in a single blinded