

to higher mortality in patients with pulmonary hypertension.

Conclusions: Pulmonary hypertension clearly affects early and late survival after MV surgery. Better survival and shorter duration of hospital stay in patients without PH supports early admission for MV surgery before occurrence of PH.

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70. Surgical mitral valve replacement with modified Melody valve in children

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Objective: We describe a case of mitral valve (MV) replacement using modified Melody valve implantation.

Methods: A 2.5 year-old girl, with a history of ALCAPA repair in April 2012, had undergone MV repair by ring annuloplasty at 1 year of age. She came back with severe MV stenosis (mean gradient, 8 mmHg) and regurgitation. She had a hugely dilated left atrium and a MV annulus of 14 mm. She, then, underwent surgical MV replacement with a modified Melody valve.

Results: The Melody valve was prepared before the cardiopulmonary bypass. The procedure included stent shortening and adding a bovine pericardial sewing ring. Through a trans-septal approach, the previous MV ring was removed, the pericardial ring patch of the Melody valve was secured to the mitral annulus and the ventricular end of the valve was fixed to the posterior-inferior wall of the left ventricle. The prosthesis was then inflated to size 16 mm. Testing of the valve showed good leaflet coaptation. The atrial septum was closed by fenestrated (4 mm) bovine pericardial patch. TEE showed good valve function with a tiny paravalvular leak and no left ventricular outflow obstruction. The pulmonary veins were also unobstructed.

Conclusions: The modified Melody valve is a viable option for children MV annular diameters, providing a valid alternative to existing prostheses. The technique is relatively easy and the short term result is very good. This prosthesis will be particularly attractive if maintaining competence after subsequent dilations as the child grows.

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71. Incidence of paravalvular leakage after aortic and mitral valve replacement at KFSH & RS, single centre experience

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Background: Paravalvular leakage (PVL) is not rare and can be a serious clinical problem in 1-5% of all valve replacement. There are inconclusive data regarding the incidence of PVR after aortic valve replacement (AVR) and mitral valve replacement (MVR). The aim of this study was to review PVL based upon more than ten years experience from King Faisal Specialist Hospital & Research Centre.

Method: Retrospective analysis of the consecutive adult patients that underwent surgical valve replacement between January 2000 and December 2011.

Results: During the period of 12 years (January 2000 through December 2011), prosthetic valve replacement surgery was performed in 2060 patients, aortic valve replacement (AVR) in 655, mitral valve replacement (MVR) in 1048 and combined AVR and MVR in 357 patients. From echocardiography database we found significantly higher incidence of PVL after combine AVR + MVR ($n = 48$; 13.45% than isolated MVR ($n = 46$; 4.38%) and AVR ($n = 29$; 4.43%).

Mechanical valve was implanted in 82 cases and bio-prosthesis in 41 cases. Initial VR was performed in 55% of patients ($n = 68$). First re-do has been done in 32 patients (26%), second-, third- and fourth reoperation were performed in 11 (8.9%), 9 (7.3%) and 3 (2.4%) patients, respectively. Mild to moderate PVL was diagnosed in 90 cases (73%) and 33 (27%) patients had moderate to severe PVR according TTE. It was significantly higher percentage of moderate and severe PVR after MVR than AVR ($p = 0.025$). There was significantly higher incidence of reoperation in mitral then aortic position ($p = 0.037$).

Conclusion: Paravalvular leakage after mitral valve replacement is severe and has a more detrimental clinical outcome compared to that after aortic valve replacement. Incidence of PVL is significantly higher after combine valve replacement than single valve replacement.

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72. Value of postoperative hyperglycemia for outcome of coronary artery bypass grafting surgery

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Objectives: To determine the frequency of postoperative (PO) hyperglycemia in non-diabetic patients underwent Coronary artery bypass grafting (CABG) surgery and to evaluate its predictability for the outcome of these patients.

Patients & Methods: The study included all patients assigned for CABG surgery and had no previous history of diabetes mellitus with preoperative fasting blood glucose of <110 mg/dl. Hyperglycemia was diagnosed if random blood glucose (RBG) levels are >180 mg/dl. Patients were categorized according RBG into: Normoglycemics had RBG <180 mg/dl and Hyperglycemics had RBG <180 mg/dl. Intraoperative data included frequency of CABG with beating heart and number of internal mammary artery graft used, aortic artery clamping, CPB and