



Title	Aortic valve replacement with stentless porcine bioprostheses
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ABSTRACTS

Abstracts for Oral Session:

CARDIAC SURGERY AND VASCULAR DISORDERS

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Re-do Aortic Root Replacement Surgery – Grantham Hospital Experience 1988 - 2002

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Purpose: To review the local experience of re-do aortic root replacement surgery in Grantham Hospital, Hong Kong.

Methods: Retrospective study on the patients who underwent re-do aortic root replacement surgery between 1988 and 2002. Indications for surgery and follow-up results of the survivors will be reviewed.

Results: 38 patients (male 27; female 11) aged 19 to 74 were operated on in the past 15 years. 6 patients died post-operatively with hospital mortality (6/38) of 15.8%. Of the 32 survivors, 2 patients died after two years of cardiovascular related cause. Post-operative morbidities and functional status of the survivors at the last follow-up will be reviewed and presented.

Conclusion: Given the progression and poor prognosis of the aortic root disease without surgical intervention, re-do aortic root replacement surgery had been performed with acceptable risks and results in selected patients in Grantham Hospital.

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Aortic Valve Replacement with Stentless Porcine Bioprostheses

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Purpose: Bioprostheses are used predominantly in elderly patients to avoid anticoagulation after aortic valve replacement. Stentless aortic bioprostheses offer established haemodynamic benefits. We sought to present our early experience of aortic valve replacement with the use of Toronto SPV (Stentless Porcine Valve).

Methods: We performed aortic valve replacement with the Toronto SPV in 14 consecutive patients requiring a bioprosthesis from June 2000. There were 8 men and 6 women. Age ranged from 51 to 79 years (mean 70 years). 4 patients required coronary bypass grafts. One was a reoperation for prosthetic valve dysfunction. The external diameter of the implanted valves ranged from 21 to 27 mm. The mean ischaemic and cardiopulmonary times were 110 and 131 minutes respectively.

Results: There was no operative death. One patient died of left ventricular failure two months after surgery. The mean systolic gradient ranged from 6.7 to 15 mm Hg upon pre-discharge echocardiographic assessment. No patient had aortic regurgitation nor para-valvular leakage.

Conclusion: This stentless porcine bioprosthetic valve has provided promising early clinical and haemodynamic results after aortic valve replacement. Implantation techniques are more complex than for stented valves, as reflected by longer ischaemic and cardiopulmonary times. Longer follow-up is needed to determine its haemodynamic superiority and durability.

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Intraaortic Balloon Pump in Open Heart Operations

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Purpose: This study reviewed our recent experience of intraaortic balloon pump [IABP] in open heart surgery at our institution.

Methods: Between January 1998 and October 2001, 68 patients [49 were male] required IABP assistance for their open heart operations. The mean age was 61.9 ± 11.9 . We reviewed our experience with emphasis on IABP complications, and identification of risk factors for hospital complications and mortality.

Results: This cohort of study included 40 [58.8%] CABG, 11 [16.2%] valve replacement, 9 [13.2%] post-infarction VSD repair and 4 [5.9%] combined CABG plus valves surgery. Forty-three patients [63.2%] had emergency or salvage operations. Eight patients [11.8%] had IABP related complications and only 2 of them were major complications. Thirty-seven patients [54.4%] had 2 or more complications post-operatively. The overall hospital mortality was 33.8%. No pre-morbid risk factors were shown to predict the post-operative complications and the hospital mortality. However, patients who had IABP inserted pre-operatively had lower complication and hospital mortality rate.

Conclusion: The IABP related complications were comparatively low. However, the post-operative complications rate and hospital mortality were high in this group of patients. The significant better outcomes in patients with pre-operative insertion of IABP may suggest a more liberal use of IABP in high risk patients.

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Surgical Treatment of Pulmonary Embolectomy in Grantham Hospital

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Purpose: To review the results of patients with massive pulmonary embolism undergoing pulmonary embolectomy in the department of Cardiothoracic Surgery, Grantham Hospital.

Methods: Retrospective review of patients with massive pulmonary embolism undergoing pulmonary embolectomy from January 1987 to December 2001.

Results: Six men and 4 women with a mean age of 47 years (ranging from 31 to 64 years) underwent pulmonary embolectomy for massive pulmonary embolism. The predominant symptoms were dyspnoea and chest pain in 6 and 5 patients respectively. Deep vein thrombosis was confirmed in 6 patients and suspected in 1 patient. One patient had multiple trauma with pelvic fracture. One patient was pregnant. Six patients had shock and 4 died early. The remaining 4 patients who were not in shock survived. Three patients had cardiac arrest and were rushed to the operation room, but all of them died shortly after the operation. There were 4 early hospital deaths, one late death was due to recurrent pulmonary embolism resulting in congestive heart failure. One patient lost follow-up.

Conclusion: Pulmonary embolectomy is a life-saving procedure for patients with massive pulmonary embolism when thrombolytic therapy is contraindicated or not available. Early mortality is closely related with pre-operation cardiac arrest.