

Results: All patients underwent pericardectomy via mid sternotomy. Average blood/ Plasma transfusion needed was one unit and average mediastinal bleeding was 250 ml. No patient developed malignant arrhythmias. There was no mortality. None of the patient needed conversion to conventional cardio pulmonary bypass.

Conclusions: Use of a harmonic scalpel is a safe and efficient technique for pericardectomy. There was no arrhythmia, as it does not produce any current. Tissue trauma was also minimal, as it does not burn the tissue.

Innovative communication tool in cardiac surgery

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Reddy DJ, Balasubramanian P, Ponraj P, Muralidharan KV, AshokK, Raju PSN

Vijaya Heart Foundation, Chennai

Background: Mankind continuously strain for the betterment of life and communication is an important tool for new invention and quality of life. Way back form the age of X ray lobbies and Tagarnos, to modern compact disks and computers, surgeons and students have to cluster around one screen to view and interact with imaging materials like coronary angiogram and echocardiograms.

Methods: We developed a back-to-back monitor that allow two or more users seated across from each other to simultaneously view, share and work with the same digital content. Further, incorporation of simple software features or as plug-ins in proprietary content enables partial masking of content, selective information display, and provides interactive tools and features on anyone side, respectively. This monitor can also be switched off on one side, for single use.

Results: Seated on either side of a notebook or desktop computer monitor, simultaneously viewing, sharing and digitally interacting with the same contents, like coronary angiogram, echocardiograms and complex surgeries is made easy with this device. Presentations and patient education can be effectively carried out.

Conclusions: Medical training as well the professional need for explaining complex anatomical/physiological, clinical conditions to patients and their families, prior to surgery can be effectively addressed with this monitor, maintaining face-to-face contact.

Pre-operative use of EECP in high-risk CABG patients

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Kumar S, Sundaramoorthi T, Cherian S, Sankar NM, Jaganath BR, Agarwal R, Nayar P, Cherian KM

Frontline Lifeline, International Centre for Cardiovascular and Thoracic Diseases, Chennai

Introduction: Enhanced external counterpulsation (EECP) is a recognized modality of treatment for congestive heart failure. We report the results of Pre-operative Use of EECP in high-risk patients undergoing CABG.

Materials: During the period of Dec 2004-Oct 2005, 13 high risk Patients (severe LV dysfunction or diffuse disease) underwent pre-operative EECP. All patients underwent nuclear scan (Thallium) and Echocardiogram before EECP therapy. We followed our institute protocol of using 7 sittings of EECP prior to surgery. All patients underwent post-EECP nuclear scan. These patients underwent CABG and post-operatively we evaluated the LV function using Echocardiogram.

Results: All patients underwent total revascularization of all territories using conventional CPB technique. Average number of conduits used was 3, Average post operative ICU stay was 3 days, and average duration of inotropic support was 2 days. No patient

required IABP insertion after CPB. Post-op morbidity including prolonged inotropic support(in 2 patients), re-intubation (1 patient), wound infection(2 patients). 2 patients died post-operatively amounting to a mortality rate of 15%. Postoperative LV function improved in all patients with mean increase of 5% in EF. PreEECP and post EECP EF improvement in all patients with mean increase of 7%.

Conclusions: In high-risk patients mortality and morbidity following CABG is considerable. Use of EECP prior to surgical revascularization may help these high-risk patients by reducing the use of IABP, inotropes and length of ICU stay. Surgical revascularisation alone may increase the post-operative EF, however pre-operative use of EECP may have a role in enhancing the effect. Further prospective randomised studies are required to evaluate the use.

IABP use – A twenty month analysis

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Subbian SK, Sankar NM, Jaganath BR, Sundaramoorthy T, Cherian KM

Frontline lifeline, International Centre for Cardiovascular and Thoracic Diseases, Chennai

Aim: To study the short term outcomes after IABP insertion with a view to identify the appropriate time and indication for IABP insertion.

Methods: During a 20 month period from Feb. 2004 to Oct. 2005, 47 patients undergoing open heart procedures had the IABP inserted for circulatory support. 41 of them underwent CABG, 3 underwent Ross procedure, 2 had Mitral valve replacement and 1 had a AVR with aortoplasty. Of the CABG group, 3 patients had additional mitral valve procedures as well. Diffuse disease and pre-operative left ventricular dysfunction was present in most patients of the CABG group. The common indication for IABP insertion included poor LV function with high PA pressures after weaning off CPB (19 patients), difficulty in weaning off CPB (9 patients), LV dysfunction in post-operative period(15 patients) and prior to surgery (4 patients).

Results: Of the 32 patients in whom IABP was inserted prior to shifting from the operating room , 22 patients (66.5%) recovered and were discharged whereas, in the 15 patients in whom it was inserted in the post-operative period, only 2 patients (13.3%) could be discharged. The use of IABP in valve procedures was associated with more mortality. 2 patients needed embolectomy at the time of removal of the IABP, there was no limb loss or other complications.

Conclusions: In patients with unsatisfactory haemodynamics pre-operative insertion or immediate insertion in the operating room, is associated with better outcome. Patients who required IABP insertion post-operatively in the ICU setting or when it was used in patients undergoing procedures other than CABG, it was associated with poor outcomes.

Thoracotomy for open heart procedures – A useful alternative

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Subbian SK, Thiagarajamurthy S, Sankar NM, Jaganath BR, Agarwal R, Cherian KM

International Centre for Cardiovascular and Thoracic Diseases, Chennai

Aim: To analyze the efficacy of thoracotomy incision for open heart procedures and to study the morbidity and mortality associated with it.

Methods: From Feb. 2004 to Oct. 2005, 22 patients underwent open heart procedures by the thoracotomy approach. Of this 21 were female