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**HIGH THORACIC EPIDURAL ANAESTHESIA IN CONSCIOUS PATIENTS FOR HIGH RISK CABG SURGERY**

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**Objective:** The association of High Thoracic Epidural Anaesthesia (TEA) with general anaesthesia is increasingly being used for coronary artery bypass grafting (CABG) with or without extracorporeal circulation. The development of minimally invasive techniques and heart beat procedure have allowed the use of TEA only in awake patients: its use has been reported for single and multiple vessel heart beat CABG. The aim of this study was to evaluate the feasibility of TEA as sole anaesthetic, in high risk patients who underwent heart beat CABG.

**Methods:** From December 2002 to October 2003, five patients scheduled for Off Pump CABG Surgery (OPCABG), received anaesthesia with epidural catheter placed at thoracic level without general endotracheal anaesthesia. Of the five patients, three presented major impaired pulmonary function (FEV1 0.58L-0.60L-0.56L respectively after aggressive medical therapy, two of this were on oxygen at home), two patients presented a general serious condition due to age and atherosclerotic disease. The age was 75-88 (years). The epidural catheter was placed on the day of surgery after standard monitoring. The catheter was inserted in the T3-T4 or T4-T5 interspace; after the insertion, a dose test (60 mg.) of Lidocaine determined the anaesthetic level by loss of sensation of pinpricks and temperature in the C7-D3 dermatomes. A continuous infusion of Bupivacain 0.5% and Alfentanil (0.5mg/ml) was then

started, the infusion was modified to maintain the motor and sensory block desired. According to the Institutional postoperative pain protocol the catheter was infused until 72 hours after insertion. All patients underwent OPCABG with partial lower sternotomy and Left Internal Thoracic Artery inserted in Left Anterior Descending Artery.

**Results:** All patients were awake and spontaneously breathing during the procedures. Hemodynamics were stable throughout the operation; no hypercapnia occurred, all patients were pain-free and did not require supplemental opioids. All patients were discharged from ICU the first postoperative day and went home between 12-14 days. No myocardial infarction occurred. Control spirometry did not show any major variation compared to the preoperative period; pain management (VAS) permitted faster postoperative mobilization. All patients agreed with the technique and tolerated the procedure well.

**Discussion:** This data shows the feasibility of TEA as sole anaesthetic during OPCABG in a small subset of patients at high risk of complications.

Median lower sternotomy was performed with TEA with the patient spontaneously breathing, avoiding general anaesthesia and mechanical ventilation, thus reducing complication. Randomized controlled trial in large numbers needed.

**References:**

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