

Outcome of high Risk Patients Undergoing CABG on Mechanical Support by Intra-aortic Balloon

Thesis

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Abstract

Introduction: The increased popularity and success of CABG grafting during the past decade seems to be a good surgical option. Good surgical results were obtained from different studies .

The benefits of IABC in reducing myocardial ischemia among critical ischemic patients undergoing CABG are unquestionable. And IABC has become the most widely used circulatory assist device because of its ease of use and its predictable response .

Many studies demonstrated that Elective preoperative IABC in patients with high-risk coronary artery disease permits On Pump CABG operation in the majority, reduces the ICU stay, leads to earlier weaning from intra-aortic balloon pump (IABP), reduces the morbidity and mortality, and is more economical

Recent studies shows that delayed usage of(intraoperative or postoperative) IABC in high-risk coronary artery disease group patients, who fulfill the insertion criteria generally result in catastrophic outcomes and is not sufficient to reverse clinical outcome

The aim of our study: was to evaluate the outcome in patients undergoing coronary artery bypass grafting (CABG) who received an intra-aortic balloon pump (IABP) prior to surgery and to determine the effect on mortality and morbidity of using the intra-aortic balloon pump preoperatively in patients undergoing CABG.

Methods: Our study enrolled sixty cardiac patients who underwent high risk coronary artery bypass grafting with IABC support. The patients were divided into two groups:


Group I; preoperative IABCp insertion.

Group II; postoperative or intraoperative IABCp insertion.

During postoperative course; certain criteria were followed including: durations of hospital stay, IABP and time of weaning and mechanical ventilation as well as outcome and IABCp related complications.

Results:

- Our patients showed insignificant difference between the two studied groups regarding basic demographic data, comorbidities and preoperative echocardiographic data.
- Group II had a significantly longer intensive care unit (ICU) stay, mechanical ventilation hours, intra-aortic balloon counter pulsation hours and a higher postoperative CPK, CPK-MB peak level with a higher frequency of deterioration of left ventricular ejection fraction (LVEF) below 40%,increased incidence of



regional wall motion abnormalities and increased incidence of mitral regurge as compared to group I.

- There was a difference regarding mortality between the two groups. As it was higher in group II.

