

TITLE OF THE ABSTRACT : **INCIDENCE AND RISK FACTORS FOR ACUTE KIDNEY INJURY (AKI) IN PATIENTS UNDERGOING ISOLATED CORONARY ARTERY BYPASS GRAFTING (CABG) SURGERY**

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Objectives

To study the incidence and risk factors for AKI (Acute Kidney Injury) in patients with normal preoperative renal functions undergoing CABG in CMC hospital, Vellore.

Methods

Details of 164 patients who underwent CABG between May 2013 and November 2013 were retrieved from the clinical database. From this group, all patients who had normal renal function as denoted by the preoperative creatinine and Glomerular filtration rates (GFR) were selected and their records studied.

Data would include the demographics (age, sex), kidney function prior to surgery, details of surgery (number of grafts, duration of surgery, bypass time, ischemic period, mean perfusion pressure) and post operative creatinine values.

RIFLE criteria for acute kidney injury used for the end point.

Results

The mean age was 57 years. 48.2% of those who developed AKI were >60 years of age. Males were predominant in our study. Diabetics and hypertensives had higher incidence of AKI.

The mean duration of Cardiopulmonary Bypass (CPB) in AKI group was 94.9 minutes. The mean duration of Ischemic time in AKI group was 51.93 minutes.

We could maintain a mean perfusion pressure (MPP) of 53mmHg on bypass. 41% of those developing AKI were having a MPP of <50mmHg.

Blood (packed cells) was used in 78 patients (61.9%). 19(24%) of these patients developed AKI.

On an average patient stayed for 6 days.

Conclusions

Incidence of AKI in our study is 23.02%. The incidence of AKI was 4 times more when Mean perfusion pressure was less than 50mmHg. The incidence was also higher in patients more than 60 years of age.

As the number of units of blood transfused increased the incidence of AKI also rises.

Occurrence of Acute kidney injury in patients undergoing Coronary Artery Bypass Grafting is a serious complication. It leads to longer hospital stays and thus increases the cost of treatment. Thus identifying them before irreversible injury has occurred is of paramount importance, thus improving patient prognosis. This would demand effort from clinicians and researchers for developing newer strategies and implementing the same.

Key words

Coronary artery bypass grafting, coronary artery disease, acute kidney injury, renal dysfunction.