Clinical, angiographic profile and hospital outcomes of patients who are on intra aortic balloon pump (IABP) after presenting with Acute Coronary Syndrome

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Aims and Objectives: To assess the clinical, angiographic profile and hospital outcomes of patients who are on IABP after presenting with acute coronary syndrome.

Methods: Over a period of two years a total of 31 patients were included in the study who presented with acute coronary syndrome and who required IABP and underwent coronary angiogram and emergency management.

Clinical and Angiographic profile with

Results: The mean age of the patients was 59 years. There were 3 females (7%) and 28 males (93%). There were 22 (70%) known Diabetics,14 known Hypertensives (45%).20 had Dyslipidemia (64%) , there were 10 smokers all male (32%), 20 (64%) patients had family history of ischemic heart disease, there were no patients who had cerebrovascular disease ,there were no patients who were classified as chronic kidney disease. The most common presentation was chest pain among 25 patients (81%), and 6 patients (19%) presented with Breathlessness. The average systolic blood pressure was 80 mm hg, the average diastolic blood pressure was 58 mm hg. The average heart rate was 110 bpm. Out of 31 patients 28 had Killips class 4 (90%), 3 had Killips class 3 (10%) at presentation. After Coronary angiogram the results showed 16 (51%) with triple vessel disease including 6 (19%) with Left Main Coronary Artery Disease), 9 (29%) with double vessel disease (25%) among them 8 with Left Anterior Descending and Right Coronary Artery disease ,one (3%) with Right Coronary Artery and Left Circumflex Disease), 6 (19%) had a single vessel disease among them 5 (16%) had Left Anterior Descending Artery lesions, one (3%) had Right Coronary Artery disease . Among the patients 16 died (51%) during hospitalization .13 patients died of persistent cardiogenic shock (81%), 2 patients died of acute renal failure(13%) ,and one of major bleeding (7%).Out of 15 patients who survived , 10 patients had Coronary Artery Bypass Grafting (67%),5 had Percutaneous Transluminal Coronary Angioplasty with Stenting (33%).

Conclusion: Patients present with acute coronary syndrome who need IABP for hemodynamic support especially those present with Killips Class 4, have increased risk of cardiac death as consistent with previous studies. In my study those patients who undergo emergency CABG have higher rates of survival compared to PTCA with stenting. Those who have left main coronary artery disease, and triple vessel disease, had increased mortality compared to those with single vessel disease.

Angiographic profile in degenerative aortic valve disease patients

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Background: Patients with degenerative aortic stenosis (AS) exhibit elevated prevalence of coronary artery disease (CAD) and internal carotid artery stenosis (ICAS) As shown in some recent articles.. Our aim was to investigate prevalence of significant CAD risk profile among patients with severe degenerative AS.

Methods: We studied 182 consecutive patients (114 men and 68 women) aged 49-91 years (median, 76) with severe degenerative AS who underwent coronary angiography in our tertiary care center. The patients were divided into two groups according to the presence of either significant CAD (n=54) and normal epicardial coronaries(n=128).The patients with significant CAD were studied by further dividing them into those with single vessel disease (SVD),Double vessel disease (DVD), triple vessel disease (TVD) in each subgroup like mild, moderate and severe AS.

Results: We found that out of total 182 patients 54(29.67%)patients had significant CAD while 128 (70.32%) patients had either normal coronary angiogram or minimal or non-flow limiting CAD. It was noted that the prevalence of significant CAD was higher with those having severe calcific AS compared with those with moderate and mild AS. The prevalence of significant CAD was higher with increasing number of traditional risk factors hypertension, dyslipidemia, diabetes, smoking habits. We found interactions between age and gender in terms of CAD. With the reference to men with a below-median age, the prevalence of CAD was more in men aged >75years, whereas the respective percentages were lower in younger men.

Conclusions: In patients with degenerative AS those without traditional risk factors risk of CAD was found to be less and we inferred that coronary angiogram may be better avoided. This especially applies to those with emergency aortic valve replacement and with deranged renal function. It was also concluded that those with severely calcified aortic valve apparatus were having more significant CAD.

To study the incidence of insulin resistance in patients with acute myocardial infarction

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Background: Insulin resistance has been advocated as the common central process in pathogenesis of bothT2DM and CVDs. IR is characterized by a diminished response to the biological effects of insulin and is associated with obesity, predominantly abdominal distribution of fat, elevated blood pressure and triglyceride levels, low HDL cholesterol, small LDL particle size, and elevations in inflammatory cytokines. The two important measures of insulin resistance namely HOMA IR and QUICKI have been used previously for the same. In this study the incidence of insulin resistance was calculated using the two parameters and patients were monitored for future CVD events.

Methods: The present study was an observational prospective study.During a 1-year period, 110 cases of AMI without known history of diabetes were included in the study. OGTT and fasting insulin were measured on day 5-7 and based on the results of OGTT subjects were divided into 3 groups (NGT/IGT/NDDM).

Results: In our study OGTT was performed in 110 subjects and subsequently were divided into three groups. Group I (NGT) included 75 patients, Group II (IGT) included 29 patients and Group