

age of the patients was 55.95 yrs, of which 89.58 % were males. The average weight was 72.67 kg. The indications for PCI were 46.18 % Unstable angina, 20.72% NSTEMI and 33.10% STEMI. 86.92% patients took a loading dose of 60 mgs whereas 13.08% patients who had taken loading dose of clopidogrel were given only maintenance dose of 10 mgs/day. A total of 26 adverse events were noticed. Preliminary analysis revealed death of 2 patients due to possible stent thrombosis. Three patients required revascularization (1 for stent thrombosis & 2 others for a different vessel intervention) and 1 required rehospitalisation however for a non cardiac cause. Major bleeding was seen in 1 patient whereas 19 patients experienced minor bleeds.

Comparison of clopidogrel vs prasugrel in patients going for PCI-2 year follow-up

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Background: There has been no Indian data on the efficacy and safety of prasugrel VS clopidogrel.

Aim: To compare the efficacy and safety of prasugrel with that of clopidogrel in patients who underwent PCI.

Methods: This is a retrospective observational study. We collected the data from patients who underwent elective/emergency PCI and were given prasugrel and clopidogrel. The study was between 2010-2012. 235 patients formed the cohort. Group I consisted of 129 patients who were treated with clopidogrel and group II was of 106 patients treated with clopidogrel. Prasugrel group received loading dose of (LD) 60 mg followed by maintenance dose (MD) of 10 mg once daily. LD and MD of clopidogrel was variable. We collected and analysed the baseline characteristics and in hospital, 30 days, 6 months, 18 months and 24 months major adverse vascular events. Primary end point was composite of death, ACS, stroke, emergency revascularisation, stent thrombosis, major bleeding. Individual secondary end points considered were admission for CCF, stent thrombosis, instant restenosis, minor bleed, hospital stay and ACS.

Results: Mean age and sex distribution were similar in both the groups. Dyslipidemia, hypertension, family history, two vessel disease were higher in group II. More patients in group II had past history of MI, prior PCI and CABG. STEMI numbers were high in group I. Group I had significantly more primary PCI and use of GP IIB III a blocker. In hospital complications were comparable in both the groups. There was no significant difference between the groups in the composite primary end points during the entire follow up period. ACS was the only secondary endpoint that occurred significantly in group 2 (p 0.03).

Conclusion: The efficacy and safety of prasugrel was comparable to that of clopidogrel in our study. Occurrence of ACS was significantly more in prasugrel group.

Acute coronary syndrome in very young adults (<35 yrs) – Time to awake and act !

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Background: Acute Coronary syndrome in very young adults (<35yrs) was considered as an uncommon entity, recently shows rising incidence especially in India. ACS in this younger age is not, simply a problem of sufferers but a huge emotional and economical loss to the family.

Materials and Methods: This is a prospective analytical study included patient <35yrs with ACS admitted in GovtRajajihospital (Madurai Medical College) in TamilNadu during Jan2013 to June 2014. Risk factors, clinical, angiographic profile and follow up data were recorded and analyzed.

Results: Among the total 2180 patients with ACS, 5.8 % (n=127) were very young adults. Youngest one was 11 yrs old with coronary anomaly. Mean age was 29.7yrs (± 3.7) and only 8.6% (n=10) were obese. Patients reached the hospital with median delay of 7hrs. Smoking (85%), male sex (93.9%) were the major conventional risk factors followed by low HDL (52%). Family history of premature coronary event seen in 12.9%, hyperhomocysteinemia, elevated Lpa and high fibrinogen were observed in 15%, 20% & 3.5% respectively. Anteriorwall MI with LAD occlusion was the commonest type (66.3%). Only 2 were undergone primary PCI (1.7%), 61% (n=71) received thrombolytic therapy. Median delay for angiogram was 72hrs (3 days). Angiographically majority (53.4%) had SVD, 31% had recanalised vessels. Coronary anomaly was seen in 4 (3.4%) patients and pure ectasia in 3 (2.5%) patients. Mean EF was 42% (± 7). In hospital mortality was 3.4% and 4.5 % (n=5) during followup.

Conclusion: Our observation showed, obstructive CAD in 56.9% of young ACS patients (<35yrs). This rapid progression of atherosclerosis in Indians is not simply due to conventional risk factors alone but due to complex interaction of both conventional and novel risk factors. Significant admission and therapeutic delay implicate the need of active strategies to protect these budding adults.

Study of factors associated with delayed thrombolysis and its impact on mortality and morbidity

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Background: Treatment delay in the management of STEMI / NSTEMI inversely correlates with prognosis and survival of the patients. This study was aimed to investigate factors associated with delay in the thrombolytic therapy of these patients in a municipal teaching hospital.

Methods: Data was collected prospectively of all patients who were admitted with acute myocardial infarction from March 2014 – June 2014. Old myocardial infarction / old coronary artery bypass graft surgery/old percutaneous transluminal coronary angioplasty (PTCA) patients were excluded. The cardiology registrar in casualty initially filled the questionnaire and sent it to the cardiology registrar in ICCU. The cardiology registrar on duty in ICCU completed the questionnaire at discharge. The questionnaire comprised of age, gender, weight, address, presenting symptoms, chest pain type, onset, events between chest pain onset and presentation to hospital, time between symptom onset and presentation to hospital, mode of transport to hospital, risk factors- smoking/diabetes/hypertension/dyslipidemia /family history, previous history of angina, socioeconomic status,

educational status, Killip class on admission, blood pressure on admission, heart rate on admission (sinus rhythm), arrhythmias, contraindication to thrombolytic therapy, STEMI / NON STEMI, Q waves on admission, infarct location, pain to needle time, pain to door time, door to needle time, ECG evidence of early reperfusion, in-hospital outcome – death/further deterioration, functional status at discharge, left ventricular ejection fraction at discharge, mitral regurgitation at discharge.

Results: Total 204 patients were studied, out of which 198 patients were thrombolysed. The results of which are as follows: out of 198 patients studied 164 (82.8%) were males and 34 (17.17%) were females. Most common age group of presentation was 50-75 yrs. The mean time of delayed presentation was found to be 4.5 hrs. The delay to hospital was more in 50-75 yrs age group (p value <0.05). The delay was more in the diabetic patients as compared to the patients without diabetes (p value <0.01). Patients with past history of angina, onset of symptoms in the early morning and late night, low socioeconomic & low educational status was significantly associated with delay of more than two hours in seeking hospital care (p value <0.05). The incidence of mortality, heart failure, fatal arrhythmias, lower ejection fraction, acute kidney injury, mitral regurgitation was more in patients presenting after two hours.

Conclusion: The result of this study suggests that a large proportion of patients with acute myocardial infarction continue to exhibit delay in hospital presentation. The characteristic of many of these individuals can be identified in advance for targeted educational efforts.

Prognostic value of BNP levels in acute coronary syndromes

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Background: Brain (B-type) natriuretic peptide is a neurohormone synthesised predominantly by the ventricular myocardium. Although initially BNP levels were used in the diagnosis of acute heart failure, the circulating hormone has been shown to provide independent prognostic value in patient with acute coronary syndromes.

Method: This study comprised of prospective analysis of 50 patients of acute coronary syndromes (37 STEMI, 10 NSTEMI and 3 UA) admitted within 72 hours of the event. The purpose of the study was to study the effects of high admission BNP levels on mortality and morbidity of patients at 30 days and at 6 months.

Results: The baseline level of B-type natriuretic peptide was correlated with the risk of death, heart failure and death at 30 days and at 6 months. Among 50 patients, 21 patients whose admission BNP levels were ≤ 80 pg/ml death occurred in 1 patient, CCF in 4, New MI in 7 and none in 9 patients occurred at 30 days, and among 29 patients whose admission BNP levels were > 80 pg/ml, death occurred in 4 patients, CCF in 08 patients, New MI in 15 patients and no complications was seen in 2 patients (p value = 0.024).

At 6 months 21 patients whose admission BNP levels were ≤ 80 pg/ml death occurred in 01 patients, CCF in 05 patients, New MI in 08 patients and in 7 patients no complication was observed and among 29 patients whose admission BNP levels were > 80 pg/ml, death occurred in 05 patients, CCF in 08 patients, New MI in 16 patients and none was observed in 0 patients (p value = 0.007).

Conclusion: A single measurement of BNP levels obtained within first few days after the onset of ischemic symptoms, provide predictive information for use in risk stratification across spectrum of acute coronary syndromes.

A multicentric, retrospective, outcome analysis of contemporary antiplatelet discontinuation practices in coronary artery disease patients undergoing cardiac / non cardiac surgeries

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Background: Patients with coronary artery disease (CAD) poses cardiologists, surgeons, and anesthetists with the dilemma of deciding between the risk of increased blood loss when continuing antiplatelet agents in the perioperative period, and the risk of thromboembolic events if the drugs are stopped.

Aim: Analysis of the data, on the current practices of continuation or discontinuation of anti-platelets in CAD patients undergoing cardiac/non-cardiac surgery. In addition to observe adverse events resulting from this practice.

Methods: Multi centric, retrospective, observational study conducted in three tertiary care centers of India. A minimum 1537 patients with CAD undergoing surgeries will be included in the study. The Primary outcome of the study is peri-operative thromboembolic events - stroke, pulmonary embolism, deep vein thrombosis and acute coronary syndromes and the secondary outcome is Peri-operative bleeding. Bleeding was classified as major (Type 2 to 5) and minor (Type 0 and 1) as per the BARC definition of bleeding.

Results: In this ongoing study 513 patients have been enrolled. The average age of the patients was 62 yr out of these 85.4% were male. 414 (80.7 %) of patient underwent cardiac surgery and 99 (19.3%) patient underwent noncardiac surgery.

Of the patient who underwent cardiac surgery 352 (85 %) discontinued the anti platelet therapy while 40 (40.4 %) underwent non cardiac surgery after discontinuing antiplatelets.

In cardiac surgery patient population, major bleeding occurred in 6.0% in discontinuation group vs 3.2 % of patients in continuation group ($p = 0.302$). In non cardiac surgery population, major bleeding were nil in both continuation and discontinuation group.

Conclusion: Antiplatelet was discontinued more often in patients who underwent cardiac group. There was no significance in the bleeding. Thrombotic events were not influenced by discontinuation of antiplatelets.

Impact of atropine and aminophylline on atrioventricular block after acute inferior wall myocardial infarction

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Background: Intravenous (IV) aminophylline has been anecdotally shown to improve conduction in atrio-ventricular (AV) block after acute myocardial infarction (AMI). Present study tried to see the efficacy of aminophylline in patients (pts.) who did not respond with atropine.