In house registry of acute coronary syndrome - A multivariate analysis of outcome and management

B. Vinodkumar, Aashish Chopra, M. Dhinesh, Dhinesh David, S. Thanikachalam, J.S.N. Murthy

Sri Ramachandra Medical College and Research Institution, Chennai, India

Background: Ischemic heart disease is one of the Leading cause for morbidity and mortality globally. The present attempt is to study the patients with acute coronary syndrome in our hospital. In house registry during the period January 2011 – January 2014 (5015 patients) was analysed.
Methods: The inclusion criteria, suspected ACS with the STEMI or NSTEMI or UA with ECG changes. The exclusion criteria were non ACS patients.
Results: A total admissions of 13634 patients, 5105 (37.44%) were ACS, 2052(40.19%) patients were STEMI, 1013(19.84%) patients were NSTEMI and 2040(39.96%) patients were unstable angina. There is a statistical significant difference, at advance age (>50yrs) in the occurrence of STEMI and NSTEMI ($p < 0.01$). 68.31% patients were either current or past smokers, with higher rates of current smoking with STEMI patients than patients with NSTEMI (53.22%) or UA 49.22% ($p<0.01$). T2DM was seen in 39.70% of STEMI Vs 22.5% with NSTEMI and 37.90% in UA ($p < 0.01$). Family H/O CAD was present in 67.4% of STEMI, 53% of NSTEMI and 78.9% 0f UA ($p<0.01$).

Mean SBP was 127.6 + 19.5 mmHg in STEMI, 133+ 21.3 mmHg in NSTEMI and 125.6 + 18.9 mmHg in UA ($p < 0.01$). Mean DBP was 76.2 + 10.7 mmHg in STEMI, 78.2 + 11.2 mmHg in NSTEMI and 75.8 + 10.9 mmHg in UA ($p<0.01$). The Avg. FBS for STEMI was 152 + 39.5, 162.4 + 39.2 for NSTEMI and 146.2 + 35.7 for UA ($p<0.01$). The Avg. PPBS for STEMI was 174.8 + 47.7, 186.6+ 55 for NSTEMI and 168.6 +41.1 for UA ($p<0.01$).

The BNP was elevated in 28.12% of STEMI, 9.38% of NSTEMI and 4.56% of UA ($p<0.01$). 5.1% of STEMI and 1.2% in NSTEMI and 0.3% in UA presented with cardiogenic shock ($p<0.01$). 33.51% of STEMI, 12.03% of NSTEMI and 3.6% of UA had CCF ($p<0.01$). 1.17% of STEMI, 0.69% of NSTEMI and 0.05% of UA had cardiac arrest ($p < 0.01$).
Conclusion: This emphasizes that multiple risk factors due to life style modification play significant role in occurrence of acute coronary syndrome in India in the present decade. The occurrence of STEMI is more frequent with younger generation than in senior citizens.

Clinical and angiographic profile of coronary artery disease in Uttarakhand and Western Uttar Pradesh

Chetan Sharma, Chhabindra Prasad Tripathi, Madhavi Anand, Azhar Zawed, R.K. Pandey, Naveen Bisht, Harish Mandal

Bharat Heart Institute, Dehradun, India

Background: Presently Study was conducted to evaluate the clinical and angiographic profile of coronary artery disease (CAD) in defined geographical area.
Methods: 192 patients were enrolled for the present study from September to December 2013. The age range was 23-86 yrs with mean age of 53 yrs. There were 142 (74%) males and 52 (23.5%) females.
Results: Of 192 Patients 52 (27%) were diabetic, 121 (63%) were hypertensive. 73 (38%) Patients were smoker. 21 (11%) patients had family history of premature coronary artery disease, while obesity (as measured by waist – hip ratio of >1) was noted in 35 (18%) of patients. Clinical Presentation was acute myocardial infarction (AMI) in 62 (32.3%) patients, chronic stable angina (CSA) in 44(22.9%) and unstable angina (USA) in 27(13.9%) patients. Angina equivalent symptoms (syncope, fatigue, shortness of breath) and heart failure were present in 5 (2.6%) and 10 (5.2%) patients. Single Vessel disease (SVD) was seen in 44(22.9%) patients while 30(15.6%) and 22(11.5%) patients had double vessel and triple vessel disease respectively. Normal coronaries with sluggish flow were noted in 31(16.2%) patients while 4(2.1%) patient had recanalized infract related vessel. 47(24.5%) patient had normal coronaries. Left Anterior descending artery (LAD) was main artery involved in 70 (36.5%) patients while left circumflex (LCX) and right coronary artery (RCA) were involved in 41 (21.4%) patients each. Ramus was involved in 5(2.6%) patients. Lesion morphology was Type A lesion in 54(28.12%) and Type B lesion 32 (16.6%) while Type C lesion were noted in 3 (1.5%) patients.
Conclusions: Thus it is concluded that CAD population of Uttrakhand and Western UP has clinical and angiographic profile akin to North Indian population with the exception that hypertension and smoking are major coronary risk factors. Smoking related coronary endothelial dysfunction as evidenced by sluggish coronary flow and hypertension require aggressive lifestyle interventions.

A prospective study on prevalence and causes of anemia in patients with acute coronary syndromes

P. Bhavanadhar, V.R. Srinivasan, S.S. Oruganti, A.K. Prasad

Osmania General Hospital, Nizam's Institute of Medical Sciences, Hyderabad, India

Background: Anemia is a contributor for adverse prognosis in acute coronary syndromes (ACS), but the epidemiology and causes of anemia in such patients is not defined.
Aim: To study the prevalence and etiology of anemia in hospitalized patients with ACS.
Methods: All consecutive patients admitted with ACS from January 2010 to March 2010 were included. Their clinical information was recorded.
Results: Of 130 (87 men) consecutive admissions for ACS, 47.7% had unstable angina, 10% had non ST-elevation myocardial infarction (NSTEMI) and 42.3% had ST-elevation myocardial infarction (STEMI). Overall prevalence of anemia (hemoglobin <130 g/l in men and <120 g/l in women) was 51.5% (n=67) and was more prevalent in women (n=30, 69.8%) than men (n=37, 42.5%). Moderate to severe anemia was more in women (34.9%) compared to men (20.8%). Anemia was more common in unstable angina patients (58.2%) than in NSTEMI (11.9%) or STEMI (29.9%) patients ($p=0.013$). Aspirin ($p<0.01$) and/or Clopidogrel intake ($p<0.01$) and raised serum creatinine ($p<0.01$) were more often in anemic patients. Heart failure ($p<0.01$) and triple vessel disease ($p<0.05$) were associated with anemia. Multivariate predictors of duration of hospital stay were hemoglobin ($p<0.05$) at admission and revascularisation procedure ($p=0.01$) during hospital stay. The most common cause of anemia was iron deficiency (29.9%).
Conclusion: Anemia was common in our patients admitted with ACS. Female gender, antiplatelet drug intake and raised creatinine were associated with anemia, which in turn was associated with