A study of aspirin plus clopidogrel versus aspirin alone on saphenous vein graft patency after coronary artery bypass graft surgery – an angiographic follow-up after three months

O.S. Thopte, S.P. Patil, R.S. Deshmukh
Sri Sathya Sai Institute of Higher Medical Sciences, Prashantigram, AP, India

Background: The co-administration aspirin-clopidogrel results in enhancement of platelet inhibition and would improve outcomes after CABG in terms of graft patency and major adverse cardiovascular events.

Objectives: The objective of this study was to examine the clinical efficacy of clopidogrel treatment on saphenous vein graft patency, incidence of major adverse cardiovascular events and safety following CABG at the end of 3 months.

Methods and Results: In this study, 74 patients undergoing coronary artery bypass grafting with SVGs were randomized to receive aspirin 150 mg plus clopidogrel 75 mg daily or aspirin 150 mg plus placebo daily for 3 months. The primary outcome was saphenous vein graft patency as determined coronary angiography at 3 months. Secondary outcomes were major adverse cardiovascular events, and major bleeding. At the end of 3 months coronary angiography was performed in 66 patients (89.1%). Overall 3 month SVG graft patency was 95.2% in the aspirin-clopidogrel group compared with 82.1% in the aspirin-placebo group (P = 0.007), and LIMA patency was 97.1% in the aspirin-clopidogrel group versus 96.9% in the aspirin-placebo group (P = 1.000). Freedom from major adverse cardiovascular events at 3 months was similar for the 2 groups. The incidence of major bleeding at 3 months was similar for the 2 groups (8.8 versus 6.25%, aspirin-clopidogrel versus aspirin-placebo, P = 1.000).

Conclusions: Compared with aspirin monotherapy, the combination of aspirin plus clopidogrel did significantly improve SVG patency 3 months after coronary artery bypass grafting without increasing the risk of major bleeding complications.

Prevalence and association of major coronary risk factors with CAD: Single centre study

K.A. Sambasivam, S. Natarajan, P.R. Vydhananth, Rajpal K. Abhaichand, P.I.S. Chakraravthi, Bivin Wilson, J.K. Periasamy, V. Nithya
G. Kuppuswamy Naidu Memorial Hospital, Coimbatore, India

Background: Different studies in our country on risk factor prevalence and association with CAD have shown varying picture. No major large scale study has been done in this part of the country.

Methods: This is a retrospective cross sectional observational study. We collected data from inpatient and outpatient records between 1995 and 2010. Data were collected with respect to presence of DM, HT, Smoking and levels of TC, HDL, LDL & TG and
presence of CAD based on angio or documented MI. There were 11250 patients, we divided the cohort in to 2 Groups, namely, CAD + (Group 1) and CAD – (Group 2).

Results: Group-wise comparison showed the following Results: Mean age in Group I significantly higher. (56.36 Vs 52.95) p = 0.0000. There were significantly higher number of males in Group 1. (6125 Vs 2682) p = 0.0000. DM (41.5%Vs 21.8%) p = 0.0000. Smoking (13.1%Vs 5.7%) p = 0.0000 were significantly higher in Group 1. Mean HDL was significantly lower in Group 1. (39.42 Vs 41.75), p = 0.0000.

Stepwise logistic regression was done on 10,615 patients which showed the following:

From the logistic regression analysis, adjusted for TC, TC/HDL, HDL/LDL, HDL and HTN it is observed that:

CAD risk 3.037 times higher in males and 2.535 times higher in DM, 2.109 times higher with each unit increase in Age. Not adjusting for Gender, analysis showed CAD risk is 2.458 times higher in DM and 2.751 times higher in smokers. Using Logistic regression model we found that in a 55 year old male, presence of diabetes increases the risk further by 18.82% and presence of smoking further increases by 9.15%.

Conclusion: 1) Traditional risk factors as age, DM, smoking have significant association with CAD. 02) Average lipoprotein levels were lower in our population.

High dose statin study

K.A. Sambasivam, S. Natarajan, P.R. Vyidianathan, Rajpal K. Abhaichand, P.I.S. Chakravarthi, Divina Wilson, J.K. Periasamy, Divya, V. Nithya

G.Kuppuswamy Naidu Memorial Hospital, Coimbatore, India

Background: There has been no Indian data on high dose statin in our country.

Aim: To assess the tolerability and safety (A 80) in high risk patients.

Methods: This is a retrospective observational study. 272 consecutive patients who were prescribed A80 and could be followed for 2 years formed the cohort. Data were retrieved from inpatient and outpatient records. Baseline demographics, initial diagnosis, interventional procedure done, list of concomitant medications, side effect profile, reason for dose reduction were all obtained and analysed.

Results: There were 238 males (87.5%) & 34 females (12.5%) Mean age was 56.4 year. HT was seen in 119 (43.75 %), DM in 109 (40.07%) Dyslipidemia in 114 (41.9 %) Tobacco use in 75 (27.57%) 236 (86.7%) patients presented with acute coronary syndrome. 204 (75 %) STEMI; 17 (6.25%) NSTEMI and 14 with unstable angina: (5.14%) 116 patients had dose reduction due to side effects (18.82%). Cough was seen in 4 (1.47%), Abdominal pain 2 (0.73%), Constipation in 3 (1.10%), Headache in 3 (1.10%) and Tiredness in 1, necessitating dose reduction. One each had SGPT and CK elevation requiring dose reduction. CK elevation more than 10 times was seen in one patient requiring stopping the statin.

Conclusion: High dose statin therapy (A80) is safe, tolerable with minimal side effects and should be prescribed to all deserving patients similar to our study group.

Our experience of CTO angioplasties

A.U. Amladi, S. Prabhu, N.O. Bansal

J.J. Hospital and Sir Grant Medical College, Mumbai, India

Background: Chronic total occlusion is defined as complete occlusion of the coronary vessel with TIMI O flow, present for an estimated duration of >3 months. Studies have found a frequency of 15-20% of CTO in angiographies. Chronic total occlusion PCI has experienced significant growth in the last few years with the adaptation and refinement of advanced techniques.

Methods: Over the past 3 years, more than 250 CTO PTCA were performed at our centre. We present an analysis of these CTO PTCA done at our centre. Subjects were analysed with respect to demographics, presentation, outcome and material used.

Results: Of the patients, males composed 72 % and females 28 % of patients. The predominant presentation was chronic stable angina (42%) followed by unstable angina (24%) and NSTEMI. The average LV function was 45%, while viability of myocardium was confirmed with stress thallium scans. The vessels involved were LAD: 38%, RCA: 42%, and LCX: 20%. In 82% procedures, TIMI III flow could be established without any complications. 12% procedures were unsuccessful, primarily due to inability to cross the lesion. Complications occured in 15 % of CTO PTCA. Of these, the commonest was: flap formation (%) 7%). Perforation occured in 6% of patients, of which 2 required placement of a covered stent, while the others were managed by balloon occlusion. 2% patients required pericardial tapping. Contrast induced nephropathy occurred in 1 patient, while 4 patients succumbed in the periprocedural period. 64% of the lesions were negotiated using regular angioplasty wires (our workhorse FIELDER FC PTCA wires), while 36% required use of CTO wires.

Conclusion: CTO PTCA is one of the final frontiers of coronary interventions, our experience shows that CTO PTCA shows promising results, with complications rates that are progressively diminishing. We would like to highlight that a majority CTO PTCA were carried out using regular angioplasty wires with balloon support as opposed to CTO wires.

Role of erythrocytes in coronary artery disease

Janapati Ramakrishna, M. Jyotsna, D. Seshagiri Rao

NIZAMS Institute of Medical Sciences, Hyderabad, Telangana, India

Background: Association of Red blood cell distribution width (RDW) and coronary artery disease (CAD) is well established. But other erythrocyte parameters Mean corpuscular volume (MCV), Mean corpuscular Haemoglobin (MCH), Mean corpuscular haemoglobin concentration (MCHC) importance in pathogenesis of CAD is not studied.

Methods: Retrospective analysis of 765 patients’ records (with complete Haemogram), who underwent coronary angiogram for suspected CAD in year 2013 at a tertiary care hospital were included in this study. Patients were grouped into angiography positive (AGP) (N=438), angiography negative (AGN) (N=327) based