IMPACT OF PRE-OPERATIVE CLOPIDOGREL USE IN PATIENTS WITH NON-ST SEGMENT ELEVATION ACUTE CORONARY SYNDROME REQUIRING CORONARY ARTERY BYPASS GRAFTING: A META-ANALYSIS

i2 Poster Contributions
Georgia World Congress Center, Hall B5
Sunday, March 14, 2010, 9:30 a.m.-10:30 a.m.

Session Title: DES I and Acute Coronary Syndromes
Abstract Category: PCI - ACS/NonStemi
Presentation Number: 2501-419

Authors: Rohit Bhuriya, Pawan Patel, Dhara Chaudhari, Amol Bahekar, Ankur Sethi, Bassel Artin, Janos Molnar, Sandeep Khosla, The Chicago Medical School, North Chicago, IL

Background: Controversy persists regarding the efficacy and safety of pre-operative clopidogrel use in patients with non-ST-segment elevation acute coronary syndrome (NSTE-ACS) requiring coronary artery bypass grafting (CABG). We conducted a meta-analysis of clinical trials to evaluate the impact of clopidogrel use in the above setting.

Methods: We performed a systematic search for studies comparing death, re-operation for bleeding and packed red blood cell (PRBC) transfusion in patients exposed (Group A) versus not exposed (Group B) to clopidogrel within 5 days of CABG in the setting of NSTE-ACS. Five trials with 7212 patients were included. Relative risks (RR) and 95% confidence intervals (CI) were computed. A two-sided alpha error of < 0.05 was considered as statistically significant (p<0.05).

Results: Compared with group B (figure below), the risk of death (RR, 1.165; 95% CI, 0.835 to 1.626; P= 0.368) and re-operation for bleeding (RR, 0.674; 95% CI, 0.284 to 1.598; P= 0.37) was similar in Group A. However, PRBC transfusion (RR, 1.124; 95% CI, 1.061 to 1.190, P= 0.00) was more in group A compared to group B.

Conclusions: In NSTE-ACS patients undergoing CABG, clopidogrel exposure within 5 days of surgery has no impact on the need for re-operation due to bleeding or mortality compared to clopidogrel unexposed patients. However, there is a significant increase in the requirement for PRBC transfusion in patients exposed to clopidogrel within 5 days of surgery.

![Figure: Impact of pre-CABG clopidogrel use in NSTE-ACS](image-url)