**TCT-137**

No benefit of Clopidogrel Pretreatment in stable patients undergoing elective PCI

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**Background:** Although Clopidogrel pretreatment is recommended (class I-C) for stable CAD patients scheduled for elective PCI, the benefit of this strategy compared to an administration at the time of PCI has not been shown on hard clinical outcome. We performed a systematic review and meta-analysis of all RCTs to evaluate the impact of clopidogrel pretreatment on mortality and major bleeding after elective PCI for stable CAD patients.

**Methods:** We included studies on elective PCI from MEDLINE, EMBASE, CCTR databases that reported clinical data on mortality and major bleeding. A random-effect model was applied. Pretreatment was defined as the administration of clopidogrel before PCI or catheterization. Primary efficacy and safety endpoints were all-cause mortality and major bleeding respectively, at longest follow up available. Secondary endpoints included Major Adverse Cardiac Events (MACE), Stroke, Stent Thrombosis, UVR.

**Results:** Of the 393 titles identified, 6 articles (3 RCTs and 3 observational studies) met the inclusion criteria, published between August 2004 and January 2013, including 28,350 patients, in those 14,678 from RCTs. 52% underwent PCI. Among NSTEACS patients, clopidogrel pretreatment was not associated with a lower risk of mortality (HR 0.85; 95% CI 0.66-1.08), p=0.18 or “PCI” (HR 0.81; 95% CI 0.58-1.13), p=0.22. When considering all of studies (RCTs and registries) together, the reduction in ischemic endpoints (OR=0.81, 95% CI(0.7-0.94), p=0.006) is counterbalanced by an increase in major bleeding (OR=1.28, 95% CI(1.12-1.46), p=0.0002). The reduction in ischemic endpoints is no more significant in the “PCI” analysis (OR=0.82, 95% CI(0.65-1.01), p=0.10) while there is still an excess of major bleeding in these patients (OR=1.2, 95% CI(1.14-1.44), p=0.048). ST, stroke and UVR were not different between groups (pretreatment vs. no) in both analyses.

**Conclusions:** Clopidogrel pretreatment is not associated with a reduction of mortality, MACE or ischemic endpoints in stable CAD scheduled for elective PCI, but with an excess of minor and any bleeding.

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**Trial Specific Registry:** www.clinicaltrials.gov

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**TCT-138**

Clopidogrel Pretreatment in Non ST Elevation Acute Coronary Syndromes: no effect on mortality, decrease in ischemic endpoints at a price of more major bleeding.

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**Background:** Background: Meta-analyses of PCI in NSTEACS patients (class I-B), at a time when the effect on mortality, decrease in ischemic endpoints at a price of more major bleeding was counterbalanced by an increase in major bleeding (OR=1.28, 95% CI (1.12-1.46), p=0.0002). The reduction in ischemic endpoints is no more significant in the "PCI" analysis (OR=0.82, 95% CI (0.65-1.01), p=0.10) while there is still an excess of major bleeding in these patients (OR=1.2, 95% CI (1.14-1.44), p=0.048). ST, stroke and UVR were not different between groups (pretreatment vs. no) in both analyses.

**Methods:** Clopidogrel pretreatment is not associated with a reduction of mortality in NSTEACS patients; the reduction of MACE is counterbalanced by major bleeding for "all" and "PCI" patients. The concept of systematic pretreatment in NSTEACS patients needs reappraisal in the contemporary era.

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**TCT-139**

The effect of glycoprotein IIb/IIIa inhibitors on mortality and MACE following PCI for NSTEMI/UA

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**Background:** Meta-analyses of PCI in NSTEMI/UA have shown GPIIbIIIa inhibitors to be associated with a reduction in major adverse cardiac events at 30 days. However, many of the trials were carried out before the routine use PY2/U2 inhibitors which act up-stream of GPIIbIIIa mediated platelet aggregation. Studies performed in clopidogrel yield conflicting results and registry data indicates that these agents are less safe than trials would indicate.

**Methods:** We undertook an observational study at an interventional cardiology center involving 5,227 patients undergoing PCI for NSTEMI/UA and receiving clopidogrel and aspirin. GPIIbIIIa use was at the discretion of the operator. Primary outcome was all cause mortality assessed at a median follow-up of 4.6 years (IQR 3.0 - 6.2 years).

**Results:** 43.6% of patients were treated with GP IIb/IIIa inhibitors. The patients were younger, more likely to be male, and have fewer comorbidities including previous MI, CKD and PVD. They were less likely to suffer multivessel disease and more likely to have a successful angiographic result. Kaplan-Meier analysis showed GP IIbIIIa inhibitor use was associated with improved survival (p<0.001) and reduced MACE (p=0.011), but increased bleeding (p=0.001). On multivariate analysis the benefits were lost for both survival (HR 0.876; 95% CI 0.693 – 1.108; p=0.501) and MACE (HR 1.036; 95% CI 0.883 – 1.216).