

CAN CLOPIDOGREL LOADING (600MG) BE ADMINISTERED <2 HOURS PRE-PCI IN PATIENTS PRESENTING WITH ACUTE CORONARY SYNDROMES?

i2 Poster Contributions

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Background: Current guidelines recommend pretreatment with a loading dose of clopidogrel before the procedure to reduce the incidence of periprocedural myocardial infarctions in patients undergoing PCI. However, due to concerns about post-CABG bleeding, clopidogrel loading is frequently administered either immediately before or after the PCI.

Methods: Using the 2004/2005 Cornell Angioplasty Registry, we analyzed 1,041 consecutive patients undergoing urgent PCI for UA/NSTEMI. Patients were divided into 2 groups: (1) "pre-angiography clopidogrel therapy": those on chronic 75-mg clopidogrel therapy or receiving clopidogrel loading (300-mg \geq 12 hrs or 600-mg \geq 2 hrs) pre-PCI according to guidelines; (2) "in-lab 600-mg clopidogrel loading": <2 hours pre-PCI (immediately before or after the PCI). Mean clinical follow-up was 23.8 ± 7.6 months.

Results: Of the 1,041 study patients, there were 467 (44.9%) patients receiving clopidogrel pre-angiography and 574 (55.1%) patients receiving in-laboratory loading. DES were used in 88% of PCI, 40% of patients presented with NSTEMI. The incidence of in-hospital death (0.4% vs. 0.5%, $p=1.000$), post-procedural MI (7.7% vs. 6.8, $p=0.630$), and MACE including death, stroke, emergent CABG/PCI, and MI (8.4% vs. 7.1%, $p=0.484$) were similar in the "pre-angiography therapy" group versus "in-lab 600-mg clopidogrel loading" group, respectively. Kaplan-Meier long-term survival rates were similar in those receiving clopidogrel pre-angiography versus those loaded with 600-mg of clopidogrel in the lab (93.4% vs. 95.8%, p log rank=0.152). After multivariate Cox analysis, administration of 600-mg clopidogrel load <2 hours pre-PCI did not have a significant impact on long-term mortality (HR 0.97, 95%CI 0.54-1.75, $p=0.927$).

Conclusions: Treatment with a 600-mg loading dose <2 hours pre-PCI is associated with similar short-term ischemic outcomes and long-term mortality when compared to currently recommended clopidogrel pretreatment regimen. These results suggest that a strategy of high-dose 600-mg clopidogrel loading once coronary anatomy has been defined may be a safe and practical alternative to conventional clopidogrel loading pre-angiography.