Adjunct Pharmacology During Percutaneous Transluminal Coronary Intervention

36 Does Clinical Presentation Impact Platelet Inhibition at Baseline and Following Glycoprotein IIb/IIIa Receptor Blockade In Patients Undergoing Percutaneous Coronary Intervention?

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Background: Glycoprotein (GP) IIb/IIIa platelet receptor antagonists have been shown to improve outcomes in acute coronary syndromes (ACS) and percutaneous coronary interventions (PCI). We sought to investigate the extent of variability in platelet inhibition (PI) between patients with ACS and patients with stable angina who undergo PCI requiring GP IIb/IIIa inhibitor.

Methods: We measured PI in 100 patients who underwent PCI and required GP IIb/IIIa inhibitor tirofiban (bolus; 0.10mcg/kg, infusion 0.15 mcg/kg/min) or abciximab (bolus; 0.25 mg/kg, infusion 0.125mcg/kg/min). Patients were classified according to the Braunwald unstable angina (UA) classification. Group I included 46 patients with class II or III UA; Group II included 54 patients with stable or class I UA. PI was measured with the Ichor CBC analyzer (Array Medical), using 20 micromole of ADP. All patients received ASA and clopidogrel prior to prodecure. PI was measured at baseline and at 15 minutes post bolus.

Results: Baseline characteristics and risk factors did not differ between the groups. Mean clopidogrel loading dose and time was similiar in both groups. Gr I had significantly lower PI compared to Gr II, both at baseline and 15 minutes following GP IIb/IIIa antagonist administration. Clinical presentation and PI baseline and post GPIIb/IIIa blockade are shown in the table.

PI	Gr I (n = 46)	Gr II (n = 54)	p-Value
Baseline	10 ± 2%	17 ± 2%	p <0.05
Post Bolus	50 ± 3%	72 ± 3%	p <0.000005

Conclusions: Patients with acute coronary syndromes have lower platelet inhibition than patients with stable angina, both, at baseline and following GPIIb/IIIa blockade.Further studies are needed to establish whether dose adjustment (and routine PI measurement) is necessary during GP IIb/IIIa use in coronary intervention and high risk patients.

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