

Coronary Artery Disease

Point-of-care testing shows clinically relevant variation in the degree of inhibition of platelets by standard-dose abciximab therapy during percutaneous coronary intervention

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Abstract

Administration of GP IIb/IIIa inhibitors during percutaneous coronary intervention (PCI) has proven clinical benefit, but is administered at a dose allowing for the patients' weight but not other variables. This study of 75 patients evaluated platelet inhibition achieved by standard-dose abciximab therapy during PCI as measured by two point-of-care (POC) instruments, Plateletworks (PW) and whole blood aggregation (WB). Results were related to the decrease of platelet activation produced as well as patients' return of angina within 30 days. Flow cytometric measurement showed abciximab suppressed platelet-monocyte aggregates ($P < 0.001$) and activated glycoprotein IIb/IIIa ($P < 0.001$) but not P-selectin. Greater POC-measured inhibition corresponded to less postabciximab expression of platelet-monocyte aggregates ($P < 0.01$). Patients above the lowest quartile of POC inhibition with PW demonstrated a relative risk of experiencing return of angina within 30 days of 0.48 (0.23-0.99). In conclusion, POC measurements reflect platelet activation suppression, higher PW measurements being associated with a decreased risk of return of angina. *Catheter Cardiovasc Interv* 2004;62:150-154. © 2004 Wiley-Liss, Inc.

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