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Chronic CAD/Stable Ischemic Heart Disease

INFLUENCE OF ACCESS SITE AND ENHANCED RESPONSE TO ANTIPLATELET THERAPY ON ACCESS SITE BLEEDING IN PATIENTS UNDERGOING PERCUTANEOUS CORONARY INTERVENTION

ACC Moderated Poster Contributions
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Session Title: How to Pick Your Antiplatelet Therapy
Abstract Category: 2. Chronic CAD/Stable Ischemic Heart Disease: Clinical
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Background: Meta-analysis showed that transradial access (TRA) decreased access site bleeding after percutaneous coronary intervention (PCI) compared with femoral access (FA). However, it is unknown whether the incidence of bleeding complications after PCI is related to the response to antiplatelet therapy or the choice of access site (or both).

Methods: Elective PCI was performed in 516 patients who received clopidogrel or ticlopidine in addition to aspirin. The subjects were divided into 2 groups according to post-treatment platelet reactivity before stenting, as measured by the response to adenosine diphosphate. Patients in the fourth quartile of platelet reactivity were defined as enhanced responders. Access site was selected at the discretion of the treating physician. Major bleeding was defined as type 3 or 5 bleeding complications of the Bleeding Academic Research Consortium consensus report.

Results: Baseline characteristics were similar between the groups. Access site bleeding occurred more frequently in enhanced responders (n=129) than remaining patients (n=387) (3.1 vs 0.5%, p=0.01), however, the incidence of nonaccess site bleeding did not differ significantly during an average of 17 months' follow-up (3.9% vs. 1.6%, p=0.11). The incidence of access site bleeding was higher in patients with FA (n=24) than in those with TRA (n=105) among the enhanced responders (17% vs. 0%, p<0.01), but was similar in patients with FA (n=65) and those with TRA (n=322) among the remaining patients (1.5% vs. 0.3%, p=0.20). Multivariate logistic regression analysis showed that FA, age >75 years, and enhanced response to antiplatelet therapy were independent predictors of access site bleeding (odds ratios, 22.5, 6.8, and 6.4, respectively; p<0.05).

Conclusion: FA and enhanced response to antiplatelet therapy were associated with increased risks of access site bleeding. Our results suggest that establishment of the optimal therapeutic range of antiplatelet activity and the wider adoption of TRA may improve the safety of PCI.