Reference


The authors of the original paper [1] were invited to reply to this Letter to the Editor but they did not respond.

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Letter to the Editor

Thromboelastography-platelet mapping expanding in non-cardiac surgery

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We read the work of Preisman et al. investigating the preoperative use of point-of-care-modified thromboelastography-platelet mapping (TEG-PM) in patients scheduled for surgical coronary revascularization [1] with great interest. We have been using TEG-PM for preoperative testing of patients with coronary stents or status post coronary artery bypass grafting (CABG) also receiving clopidogrel and aspirin, but scheduled for ‘non-cardiac’ surgery.

Although cardiac surgical patient group of Preisman et al. is unique, data does exist for quantification of platelet dysfunction for patients undergoing coronary revascularization in the catheterization laboratory as opposed to the operating room [2]. Several studies have addressed the ‘non-responder’ cohort, with the prevalence of non-responders to anti-platelet therapy found to be variable and often unexpectedly high in patients presenting for surgery in general [3,4]. Given the anticipated emotional and physiological stress of impending surgery, especially in hospitalized patients (some with a very recent catheterization experience), Preisman’s findings are not entirely unexpected.

In our preliminary non-cardiac surgical cohort, we also have found incomplete platelet inhibition assessed by TEG-PM, with an apparent greater impact on adenosine diphosphate (ADP)-receptor inhibition by clopidogrel than arachidonic acid inhibition by aspirin [5], similar to Preisman’s findings.

As cardiologist surgeons and anesthesiologists grapple with decision making in surgical patients receiving anti-platelet therapy, we echo Preisman’s recommendation for individualized objective assessment of anti-platelet effect leading to rational decisions for interruption (or not) of aspirin and clopidogrel.

References


Abbreviations: TEG-PM, thromboelastography-platelet mapping; ADP, adenosine diphosphate.

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We would like to thank Drs Cattano and Pivalizza for their letter regarding our article [1]. Given the high and growing prevalence of anti-platelet therapy in patients presenting with various kinds of invasive interventions, surgeons and anesthesiologists more and more frequently encounter difficult clinical decisions regarding the cessation of this therapy, appropriate timing of the intervention, and the optimal surgical/anesthetic technique of choice. Such decisions have a profound impact on patient outcome, despite the fact that they are made in an atmosphere of almost complete lack of relevant information. Surgeons and anesthesiologists need to balance the risk of increased intra-operative blood loss (or severe morbidity due to formation of hematoma with compression of surrounding tissue in neurosurgical patients and those undergoing