Platelet reactivity unit in predicting risk of bleeding in patients undergoing coronary artery bypass graft surgery

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BACKGROUND: Bleeding is a common complication of cardiac surgery, accounting for a significant proportion of the total transfusions performed in the United States and Europe. The relationship between platelet reactivity, bleeding and other adverse events after coronary artery bypass graft has been incompletely characterized. In this study we aimed to determine the relationship between platelet reactivity and bleeding as a clinical outcome after successful coronary artery bypass graft (CABG).

METHODS AND RESULTS: A total of 238 patients underwent CABG were retrospectively followed for postoperative bleeding. Platelet reactivity unit (PRU) values for all patients were obtained preoperatively to assess the platelet reactivity. The data showed that a range of 150-200 PRU suggests the likelihood of bleeding after CABG (P=0.004), with a statistically significant association only for dual antiplatelet therapy with aspirin and clopidogrel.

CONCLUSION: In conclusion, by using PRU values as a method to assess platelet reactivity and antiplatelet responsiveness, our findings suggest that it may be possible to stratify patients undergoing CABG for the risk of postoperative bleeding particularly patients on dual antiplatelet therapy.

Biography
Zaid Altheeb is currently a Cardiology fellow at New York Medical College. He graduated from Jordan University of Science and Technology (J.I.U.S.T) in 2009. He has a Medical degree in medicine and surgery. He is in the American board of internal medicine from New York Medical College at St. Joseph’s, Paterson-New Jersey USA. He is a Member in American college of physicians ACP and American College of Cardiology ACC. He has publications in the field of cardiovascular medicine.

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