10049

Complementary prognostic value of Thromboelastography and Computed Tomography Coronary Angiography in Patient Undergoing Noncardiac Surgery

ObjectivesTo compare the complementary prognostic value of native pro-coagulant state measured by thrombelastography maximum amplitude (TEG-MA) and coronary artery disease evaluated by CT coronary angiography (CTA) in patients undergoing noncardiac surgery.MethodsTotal 133 patients with more than one clinical risk factor for perioperative CV events were enrolled prospectively. The clinical risk was classified according to revised cardiac risk index (RCRI), TEG-hypercoagulability was defined as an MA of more than 67 mm and CTA results were assessed using the severity of stenosis. Postoperative events were defined as cardiac death, non-fatal MI, myocardial injury after noncardiac surgery, and ischemic stroke.ResultsFifteen patients (13%) had postoperative events. RCRI-adjusted regression analyses showed both higher TEG-MA (hazard ratio [HR]: 12.78, 95% confidence interval [CI]: 1.58 to 103.49; p =0.017) and presence of significant stenosis (HR: 3.82, 95% CI: 1.14 to 12.87; p=0.030) were independently predictive of perioperative events. When comparing ROC-curves of combination models, both TEG (C-statistic: 0.767) and CTA (C-statistic: 0.743) improved risk stratification beyond clinical risk (C-statistic: 0.634).ConclusionsTEG and CTA were independent and complementary predictive value in the postoperative risk stratification of patients who were undergoing noncardiac surgeries.