Abstract: **P1952**

**Value of GRACE risk score in risk stratification in acute coronary syndrome patients undergoing PCI in the Global Leaders study**

**Authors:**
H Komiyama¹, P Chichareon¹, C Hamm², P Juni³, M Valgimigli⁴, P Vranckx⁵, S Windecker⁶, Y Onuma⁶, G Stegg⁷, P Serruys⁸, ¹University of Amsterdam - Rotterdam - Netherlands (The), ²German Centre for Cardiovascular Research - Frankfurt - Germany, ³Applied Health Research Centre - Toronto - Canada, ⁴Preventive Cardiology & Sports Medicine, Inselspital Bern - Bern - Switzerland, ⁵Heart Centre Hasselt - Hasselt - Belgium, ⁶Erasmus University Medical Centre - Rotterdam - Netherlands (The), ⁷Hospital Bichat-Claude Bernard - Paris - France, ⁸Imperial College London - London - United Kingdom of Great Britain & Northern Ireland,

**Topic(s):**
Acute Coronary Syndromes – Treatment

**Citation:**

Aims: We sought to evaluate the value of GRACE risk score in stratifying acute coronary syndrome patients undergoing percutaneous coronary intervention in the Global Leaders study.

Methods: Global Leaders study was a prospective, multi-center, open-label, all-comers, randomized controlled trial comparing ticagrelor monotherapy after 1 month of dual antiplatelet therapy (DAPT) as experimental therapy with aspirin monotherapy after 12 months of conventional DAPT (reference therapy) in patients who received PCI with biolimus-A9 eluting stent. We assessed the predictive value of GRACE risk score in ACS patients undergoing PCI in the present analysis. Patients were stratified according to GRACE risk score into low (1-108), moderate (109-140), High (141-372) risk group. Clinical outcomes at 2 years after PCI were assessed and compared among risk groups. Interaction between GRACE risk score and antiplatelet regimen were analyzed by the interaction term in Cox model.

Results: GRACE risk score was calculated from 8 clinical parameters at presentation. Among ACS patients, 1664 patients were categorized in low risk group, 2903 patients were in moderate risk group, and 2028 patients were in high risk group. The rate of all-cause mortality, any stroke, patient-oriented composite endpoint (POCE) were highest in the high-risk group at 2 years (All-cause mortality; low risk 1.4%, moderate risk 2.5%, high risk 6.1%, log rank test p value < 0.0001, any stroke; low risk 0.7%, moderate risk 1.0%, high risk 2.0%, log rank test p value 0.001, POCE; low risk 12.4%, moderate risk 11.9%, high risk 16.61%, log rank test p value < 0.0001). The rate of myocardial infarction, all revascularization and definite or probable stent thrombosis were not different among three groups. There was no interaction between GRACE risk score and antiplatelet regimen were analyzed by the interaction term in Cox model.

Conclusion: GRACE risk score is valuable in identifying ACS patients with highest risk of all-cause mortality, any stroke and POCE at 2 years after PCI. In ACS, ticagrelor monotherapy did not improve the outcomes at 2 years in the three strata of the GRACE risk score.
Aims: We sought to evaluate the value of GRACE risk score in stratifying acute coronary syndrome patients undergoing percutaneous coronary intervention in the Global Leaders study.

Methods: Global Leaders study was a prospective, multi-center, open-label, all-comers, randomized controlled trial comparing ticagrelor monotherapy after 1 month of dual antiplatelet therapy (DAPT) as experimental therapy with aspirin monotherapy after 12 months of conventional DAPT (reference therapy) in patients who received PCI with biolimus-A9 eluting stent. We assessed the predictive value of GRACE risk score in ACS patients undergoing PCI in the present analysis. Patients were stratified according to GRACE risk score into low (1-108), moderate (109-140), High (141-372) risk group. Clinical outcomes at 2 years after PCI were assessed and compared among risk groups. Interaction between GRACE risk score and antiplatelet regimen were analyzed by the interaction term in Cox model.

Results: GRACE risk score was calculated from 8 clinical parameters at presentation. Among ACS patients, 1664 patients were categorized in low risk group, 2903 patients were in moderate risk group, and 2028 patients were in high risk group. The rate of all-cause mortality, any stroke, patient-oriented composite endpoint (POCE) were highest in the high-risk group at 2 years (All-cause mortality: low risk 1.4%, moderate risk 2.5%, high risk 6.1%, log rank test p value < 0.0001, any stroke: low risk 0.7%, moderate risk 1.0%, high risk 2.0%, log rank test p value 0.001, POCE: low risk 12.4%, moderate risk 11.9%, high risk 16.61%, log rank test p value < 0.0001). The rate of myocardial infarction, all revascularization and definite or probable stent thrombosis were not different among three groups. There was no interaction between GRACE risk score and treatment regimen on clinical outcomes at 2 years.

Conclusion: GRACE risk score is valuable in identifying ACS patients with highest risk of all-cause mortality, any stroke and POCE at 2 years after PCI. In ACS, ticagrelor monotherapy did not improve the outcomes at 2 years in the three strata of the GRACE risk score.