ACS and treatment-risk paradox according to GRACE risk score

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THEME: Coronary Interventions
TOPIC(S): STEMI, NSTEMI

AIMS
The aim was to evaluate the incidence of reperfusion therapy in patients with acute coronary syndrome (ACS) stratified according to GRACE risk score

METHODS AND RESULTS
This is a single centre retrospective observational study which included 975 consecutive patients with ACS (612 male (62.8%) hospitalized from 2016 September - 2017 February. Their clinical data and choice of reperfusion were documented and GRACE risk score was calculated and used to divide patients into low (Group1, n=372), intermediate (Group2, n=360) and high risk (Group3, n=243). Revascularization was performed in 727 out of 975 (74.6%). PCI was performed in 683 patients (70.05%), CABG in 44 (4.51%) and solely medical therapy was applied in 227 (23.28%) patients. In-hospital mortality was 2.15% (n=21). There were no deaths in Group1 and mortality rate was significantly (p<0.001) lower in Group2 (n=4 (19%) in comparison to Group3 (n=17 (81%). Paradoxically, the highest incidence of revascularization therapy was noted in Group1 in comparison to Group2 and Group3 (38.8% vs 36.5% vs 24.8% respectively). 146 out of 975 patients (15.1%) had three vessel disease (3VD) with a mortality rate 4.1% vs 1.8% in patients with non 3VD.

CONCLUSIONS
The 'treatment-risk' paradox exists in our daily clinical practice where revascularization procedures are more offered to lower risk patients. All 'incomers' included in analysis confirm that higher GRACE risk score and the severity of coronary artery disease is associated with a higher mortality rate. Risk stratification can have a major impact in choosing right interventions at the right time if used on a daily basis.