PREDICTION OF LATE MORTALITY AFTER MYOCARDIAL INFARCTION BY MEANS OF THE GRACE SCORE IN CONTEMPORARILY TREATED PATIENTS

Poster Contributions
Hall C
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Background: The GRACE Score (GS) was proposed for prediction of early and late mortality risk in acute coronary syndrome (ACS) patients. The GS includes age, history of congestive heart failure and previous myocardial infarction, heart rate, systolic blood pressure and presence of ST-segment depression at admission, and serum creatinine, cardiac enzymes and percutaneous coronary intervention (PCI) during hospitalization. GS was developed and validated in patient with ACS collected in a multinational registry between 1999 and 2003. Less than one third of the registry patients were treated with PCI. Aim of this study was to investigate the predictive power of the GS in contemporarily treated post-infarction patients.

Methods: 941 consecutive AMI patients aged ≤80 yrs were included. 93% underwent a PCI, 95% received beta-blockers, 94% ACE inhibitors and 93% statins. The GS was calculated according to the published protocol. Uni- and multivariable analyses were performed with traditional risk stratifiers like LVEF ≤35% and diabetes mellitus. Follow-up was 5 years. Primary endpoint was total mortality.

Results: During follow-up, 72 patients (7.7%) died. The GS shows the strongest association with mortality in the uni- and multivariable analysis followed by reduced LVEF and Diabetes mellitus. By analyzing the different components of the GS in a multivariable analysis, only age, serum creatinine and history of previous myocardial infarction were independent and significantly associated with mortality (HR CI) 1.09 (1.06 - 1.12); 1.82 (1.42 - 2.34); 2.01 (1.12 - 3.63)).

Conclusions: The GS is a strong risk predictor of 5-year mortality after acute myocardial infarction in a contemporary treated patient population and independent of reduced LVEF and diabetes mellitus. Age, serum creatinine and history of prior myocardial infarction carried the most predictive information of the GRACE score.