EC5_3

Soroka Acute Myocardial Infarction (SAMI) Score Predicting 10-Year Mortality Following Acute Myocardial Infarction

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Background:
Long-term risk stratification is of great importance as benefits of costly interventions and medical treatments are greatest in high risk patients. The aim of the study was to evaluate and to adapt the SAMI index, originally designed for 1-year post AMI follow-up risk stratification, for a long-term follow-up (ten years).

Methods:
Overall 2,772 AMI patients discharged from Soroka Medical Center during 2002-2004 were included. The primary outcome was all-cause mortality during a follow-up period up to 10 years. The weights of original SAMI score parameters were revised and adapted for this follow-up period. The accuracy of the original and adapted scores was assessed using the receiver operating characteristic (ROC) regression.

Results:
During the follow-up period, the cumulative mortality was 51.4%. Original score (in points) included age (65-75 years=2, >75=4), abnormal echocardiography findings (4) absence of echocardiography (2), potassium level< 135 (2), re-vascularization (-3 for PCI and -6 for CABG), comorbidities each 2 points: renal diseases, anemia, obesity. Other non-cardiovascular comorbidities such as: COPD, neurologic deficits, malignancy, GI bleeding (3 points). The changes in the adapted score were: increased weight of older age and decreased weight of: abnormal echocardiography, hyponatremia, anemia, non-cardiologic co-morbidities, protective effect of revascularization and obesity. A one point increase in the total score was associated with HR of 1.25 (95% CI: 1.23-1.26, $p<0.001$) and 1.32 (95% CI: 1.30-1.34, $p<0.001$) for the original and the adapted risk score respectively. The ROC was 0.833 and 0.942 for the original and the adapted score respectively.

Conclusions:
The current report expands the applicability of SAMI risk score for long-term risk stratification. Furthermore it extends and updates current information on determinants of long-term prognosis following an AMI.