One-Year Outcome Following Coronary Intervention in Elderly Patients with Non-ST Elevation ACS

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Background: Elderly patients with non-ST-segment elevation acute coronary syndromes (NSTE-ACS) may benefit from early coronary intervention. We aimed to evaluate the outcome of elderly patients with NSTE-ACS following coronary angiography in a real world setting.
Methods: The risk of 30-day and 1-year mortality by age and the time of coronary angiography (categorized as early [>48h of admission] and late [>48h of admission]) was assessed among 2,021 NSTE-ACS patients enrolled in the Acute Coronary Syndromes Israeli Survey (ACSIS) between 2004 and 2008.
Results: Elderly patients (>75 years) comprised 30% of the study population, and experienced a significantly higher rate of in-hospital complications. The risk of 1-year mortality was 2.6-fold ($p<0.001$) higher among elderly patients as compared with younger patients. Multivariate analysis showed that among patients aged >75 years, early and late interventions were associated with a lower risk of death at 30-day (HR=0.27 [p=0.0008] and HR 0.34 [p=0.004], respectively) and at 1-year (HR=0.41 [p=0.0002] and 0.52 [p=0.003], respectively) as compared with no intervention. In octogenarian patients (>80 years), early coronary angiography was associated with higher survival rates at 1-year (84%) as compared with both late coronary angiography (75%) or no intervention (61%; $p<0.001$ for both comparisons).
Conclusions: Our findings demonstrate that elderly patients comprise a high risk subset of the NSTE-ACS population, in whom coronary intervention is independently associated with a lower risk of mortality at 30 days and 1-year. Early intervention (within 48h) appears to be associated with a more favorable effect than late intervention in the octogenarian age-group.