Long Term Outcomes in Patients Aged >85 Years Presenting with Type II Myocardial Infarction (Type II MI)

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Introduction: There is a paucity of data regarding the presentation, management and the long-term outcomes of very elderly patients who suffer from a type II myocardial infarction.

Methods: A single-centre retrospective analysis of 956 consecutive patients aged >85 years presenting with NSTE MI between 2010-2018 was undertaken. Patients were stratified by type I vs Type II MI as defined by the 4th Universal Definition of MI. The primary outcome was all-cause long-term mortality ascertained by review of electronic medical records.

Results: Mean age of the cohort was 89 ± 3 years and 43.8% were male. Of the 956 patients included, 477 (50%) suffered a type II MI. The predominant presentations of patients presenting with type II MI included delirium (34.3%), sepsis (18.4%), non-cardiac surgery (8.5%) and bleeding/anemia (6.7%). Those with Type II MI were less likely to undergo invasive coronary angiography (2.5 vs 17.0%, p<0.001) and less likely to be prescribed aspirin (77 vs 84%, p<0.001). In-hospital mortality was significantly higher in those with type II MI (21.1 ± 3, 78 vs 69%, p<0.001). In-hospital mortality was significantly higher in those with type II MI (21.1 ± 3, p<0.001). Over a mean follow-up of 1.3 years, 444 patients died (46.4%). Despite higher in-hospital mortality, on multivariable Cox-regression, Type II MI was not significantly associated with higher long-term mortality (adjusted HR 1.1 95%CI 0.8–1.2, p=ns).

Conclusion: Type II MI is common in elderly patients and confers a high risk of in-hospital mortality. At present, there is a lack of evidence to risk stratify and guide treatment in this population.

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