The 90s are the new 70s: approach to nonagenarian patients with myocardial infarction: data from the Real World Portuguese Registry on Acute Coronary Syndromes (ProACS)

Authors:
J Grade Santos¹, A Briosa¹, AR Pereira¹, A Marques¹, D Sebaiti¹, S Alegria¹, AC Gomes¹, I Rangel¹, G Morgado¹, R Cale¹, C Martins¹, H Pereira¹, ¹Hospital Garcia de Orta - Almada - Portugal,

On behalf: Real World Portuguese Registry on Acute Coronary Syndromes (ProACS)

Topic(s):
Acute coronary syndromes – Epidemiology, Prognosis, Outcome

Introduction: The approach to Acute Coronary Syndromes is based on robust high quality evidence, currently systematized in European endorsed guidelines. However most trials that support such guidelines excluded or included a small percentage of the very elderly, namely nonagenarian patients, and the clinical decision in this age range is subjected to high interpersonal and inter-hospital variability.

Purpose: Our aim was to assess the approach to nonagenarian patients with Acute Coronary Syndromes (ACS), in what regards the choice of percutaneous coronary intervention or conservative management and determine in-hospital and at 1 year outcomes.

Methods: We performed a 9 year retrospective analysis of all patients with age equal or greater than ninety (90) admitted with ACS in Portugal. Medical records were analysed for demographic, procedural data and outcomes.

Results: Seven hundred and fourteen (714) nonagenarian patients were admitted with ACS, which corresponded to 2.4% of the total cohort. The mean age was 92 ± 2 with a female preponderance (58.7%). There was a high rate of cardiovascular risk factor with hypertension in 81.3%; Dyslipidemia in 46.1% Diabetes Mellitus in 23.4%; and other comorbidities with 21% of prior ACS, 14.4% with Heart Failure, 11% with cerebrovascular events and 15.4% with chronic kidney failure.

The ACS was categorized as ST elevation Myocardial Infarction (STEMI) in 43.9%, non-STEMI (NSTEMI) in 45.8%, and unstable angina (UA) in 2%.

Two hundred and sixty-eight (268), 37.8% of the cohort, were submitted to percutaneous coronary intervention (PCI), mainly due to STEMI (68.3%). This cohort were composed of patients with less comorbidities (statistically significant less valvular heart disease, heart failure, peripheral artery disease and dementia although more oncological diseases). There was no difference in the severity of ACS, as categorized by the Kilip Kimbal (KK) classification, mechanical complication or depressed ejection fraction between the 2 groups. (p>0.05 for all)

There was a statistically significant increase of advanced atrioventricular block (10.6 vs 4.4%; p 0.002; Logistic regression OR 3.12; IC95 [1.37-7.15], p 0.007) and major bleeding (1.8 vs 5.5%; p 0.008; Logistic regression OR 3.36; IC95 [1.36-8.32] p 0.009 ) in the PCI group. There was no difference in in-hospital re-infarction, cardiac arrest, stroke or death. (p>0.05 for all)

The follow up at 1 year was performed in two hundred and fifty-six (256) patients, 30.9% submitted to PCI. Although the survival analysis demonstrated a trend towards improvement in 1-year survival and cardiovascular readmissions in the intervention group, it did not reach statistical significance. (p>0.05 for all)

Conclusions: PCI was performed in about a third of nonagenarians presenting with ACS. Our cohort demonstrated a greater rate of in-hospital complications without a significant in-hospital or at 1 year clinical benefit.