

ST-elevation myocardial infarction management in elderly patients at the University Hospital Centre Zagreb

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KEYWORDS: acute coronary syndrome, elderly, ST-elevation myocardial infarction, treatment.

CITATION: *Cardiol Croat.* 2024;19(11-12):369. | <https://doi.org/10.15836/ccar2024.369>

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Introduction: Due to their advanced age and comorbidities, elderly patients with acute ST-elevation myocardial infarction (STEMI) receive less frequent treatment with percutaneous or surgical revascularization. This can negatively impact their quality of life and survival.¹ We performed a retrospective study to analyze treatment strategies in STEMI patients aged 80 or older and to evaluate clinical outcomes according to the treatment modalities.

Patients and Methods: A retrospective study included consecutive acute STEMI patients in their eighties and nineties who presented at the University Hospital Centre Zagreb from November 2018 to October 2023. The statistical analysis was conducted based on data collected from medical records. The primary aim was to analyze the treatment strategy (invasive vs. conservative). Demographic characteristics, risk factors, and outcomes were also compared based on the type of therapeutic approach (death during 6-month follow-up, recurrent myocardial infarction, and cerebrovascular stroke).²

Results: Among the 214 STEMI patients, with a median age of 83.5 [81–87] years, 129 (60.3%) were women. Thirty patients (14%) had a prior myocardial infarction, and 27 patients (12.6%) had received some revascularization treatment. The majority of patients had arterial hypertension (83.6%), and one-third of patients had hyperlipidemia (34.6%) and diabetes mellitus (29.9%). An invasive strategy was used in 152 patients (71%). All patients treated with an invasive strategy received percutaneous coronary intervention (PCI), and in 143 patients (94.1%) a drug-eluting stent was implanted. These patients were younger (83 [81–86] vs. 85.5 [82–88], $p = 0.009$) and had an insignificantly higher frequency of prior myocardial infarctions (15.1% vs. 11.3%) and coronary revascularizations (13.2% vs. 11.3%). During the 6-month follow-up, a total of 67 (31.3%) patients died. Significantly fewer deaths occurred in the invasive group compared to the conservative group during the 6-month follow-up (25.7% vs. 45.2%, $p = 0.005$). The incidence of recurrent myocardial infarction and cerebrovascular stroke did not differ between the invasive and conservative treatment groups. Multivariable regression analysis revealed that active or prior oncologic disease (HR = 2.55; 95% CI: 1.12–5.82; $p = 0.026$), moderate or severe aortic stenosis (HR = 4.71; 95% CI: 1.78–12.42; $p = 0.002$), or infection during hospitalization (HR = 2.53; 95% CI: 1.17–5.45; $p = 0.018$) were negative predictors of 6-month survival, whereas the invasive approach did not show a significant association (HR = 0.59; 95% CI: 0.27–1.30; $p = 0.192$).

Conclusion: This study showed that STEMI patients aged 80 and above treated with PCI had a statistically significant better 6-month survival than patients treated conservatively.

RECEIVED:
September 26, 2024

ACCEPTED:
October 31, 2024



LITERATURE

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