

Prevalence, clinical profile and 3-year outcomes of acute myocardial infarction patients with and without obstructive coronary lesions: The FAST-MI 2005 registry

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Objectives: our aim was to describe the clinical profile and to evaluate the 3-year outcome of patients admitted for acute myocardial infarction (AMI) according to the presence of obstructive coronary lesions on coronary angiography (CA).

Methods: within the French FAST-MI 2005 national registry, including patients with definite AMI and elevated cardiac markers, we analyzed baseline characteristics and outcomes of patients admitted for STEMI and NSTEMI according to their coronary status. Obstructive coronary artery disease (OCAD) was defined by at least one significant stenosis ($\geq 50\%$) in a major epicardial coronary vessel. Major events were recorded at hospital discharge and at 3 years. Finally, long-term net mortality in each group was assessed by comparing observed mortality rates with standardized French mortality.

Results: among 2582 participating patients, 6.4% (n=167) had no obstructive coronary lesion on the first CA (5.21% in STEMI vs. 8.21% in NSTEMI). They had a lower global cardiovascular risk, Life threatening symptoms at admission or in-hospital mortality (1.8% vs. 3% in-hospital deaths for patients without and with OCAD, respectively, $p=0.27$) did not differ. By contrast, 3-year prognosis was better in patients with no OCAD (3-year death rates were 5.9% in patients without and 13.7% in patients with OCAD, $p<0.01$). This difference of risk remain significant after extensive adjustment; HR were 0.31 ($p<0.001$) for risk of events and 0.42 ($p=0.01$) for risk of death at 3-year in patients without OCAD. Moreover, mortality of ACS without OCAD was comparable with expected French population of the same age ($p=0.32$), whereas risk of death was twice as high in patients with OCAD.

Conclusion: Absence of obstructive coronary lesion was found in 6.4% of patients admitted for AMI. Moreover, in-hospital mortality was not significantly different from that of patients with coronary stenosis. By contrast, their long-term survival is comparable with the general population.