Does syncope require rhythmic and non rhythmic evaluation in patients with previous MI?

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Ventricular tachycardia (VT) is considered as the main cause for syncope after myocardial infarction (MI). Multiple other causes have been reported. When left ventricular ejection fraction (LVEF) is low (35 %), the implantation of a debrillator (ICD) is recommended. The mortality of these patients (pts) remains relatively high. The purpose of study was to evaluate the main causes implicated in syncope after MI and the clinical factors associated with the diagnosis.

Methods: 363 pts, 307 men, 56 women, consecutively admitted for syncope and history of MI (> 1 month), without VT underwent echocardiography, Holter monitoring, head-up tilt-test, exercise testing, signal-averaged ECG, electrophysiological study (EPS) and evaluation of coronary status. They were followed 4±2 years.

Results: The presumed cause of syncope was attributed after EPS to a ventricular arrhythmia in 151 pts (monomorphic VT 88, ventricular flutter or fibrillation (VF) 63), to a supraventricular tachyarrhythmia (SVT) in 39 pts, to conduction disturbances in 24 pts; 57 pts had several electrophysiological abnormalities: 26 had inducible VT or SVT and coronary ischemia; hyperventilation; PAO=0.15 was noted in 8 pts with induced VT or SVT. In the case of negative EPS, coronary ischemia alone was identified in 41 pts, hyperventilation in 27pts. All studies were negative and syncope remains unexplained in 86 pts (24 %), mainly women (p<0.001), X² vs 20%***). Male gender (90 % vs 80 %***), a longer QRS duration (139±31 vs 115±28 ms***), a lower LVEF (36±11.5 vs 46±12 %***) and grade IVa,b of Lown on Holter ECG (53 vs 80 %***), a higher creatinine (1.45±1.33 vs 0.96±0.69 mg/dL***), a longer time since MI (254±118 vs 180±109 days, p<0.001) were predictors of cardiac mortality, VT predictor of sudden death, female gender (44% vs 28%***), older, more frequently women and more often had diabetes mellitus, arterial hypertension and renal insufficiency (p<0.05). At admission, they more often presented with Killip class I and II higher than one (p<0.05) but there were no differences regarding ACS presentation. They were less likely to be medicated with clopidogrel, β-blocker and statin (p<0.05) and to undergo invasive strategies and coronary revascularization (p<0.05). They had higher in-hospital and six-month mortality (19.6 % vs 3.3 % and 35.1 % vs 7.7 %, respectively; p<0.001).

Conclusions: The presence of an acute or subacute, major, noncardiac condition was a powerful predictor of in-hospital and six-month mortality. Our results outline the importance of treating or preventing noncardiac conditions that negatively influence the prognosis of ACS patients.

Prevalence and prognostic value of acute or subacute noncardiac conditions in patients with acute coronary syndrome

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Introduction: Acute coronary syndrome (ACS) may be complicated by acute or subacute, major, noncardiac conditions. Few data are available regarding their exact prevalence and prognostic value.

Purpose: We sought to determine the prevalence of major noncardiac conditions in ACS patients and their prognostic value.

Methods: A total of 1936 patients consecutively admitted with ACS were reviewed. We considered as acute or subacute, major, noncardiac conditions the following pathologies: pneumonia, decompensate chronic obstructive pulmonary disease, sepsis, stroke, anaemia, severe deterioration of renal function and active malignancy. We compared patients with at least one noncardiac condition to the others. Primary end points were in-hospital and 6-month mortality.

Results: Two hundred and three patients (10.5 %) had at least one acute or subacute, major, noncardiac condition. Patients with a noncardiac condition were older, more frequently women and more often had diabetes mellitus, arterial hypertension and renal insufficiency (p<0.05). At admission, they more often presented with higher ST-segment elevation (p<0.05) but there were no differences regarding ACS presentation. They were less likely to be medicated with clopidogrel, β-blocker and statin (p<0.05) and to undergo invasive strategies and coronary revascularization (p<0.05). They had higher in-hospital and six-month mortality (19.6 % vs 3.3 % and 35.1 % vs 7.7 %, respectively; p<0.001).

Conclusions: The presence of a noncardiac condition was a powerful predictor of in-hospital and six-month mortality. Our results outline the importance of treating or preventing noncardiac conditions that negatively influence the prognosis of ACS patients.