Does syncope require rhythmic and non rhythmical 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 defibrillator (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 echo cardiography, 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 tachyarythmia (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; hypervagotonia was noted in 8 pts with induced or VT or SVT. In the case of negative EPS, coronary ischemia alone was identified in 41 pts, hypervagotonia in 27 pts. All studies were negative and syncope remains unexplained in 86 pts (24 %), mainly women (p<0.001,27 % 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 %***), grade IV,a,b of Lown on Holter ECG (53 vs 31.5 %***), were associated with VT induction. LVEF < 40 % and VT/VPF induction were predictors of cardiac mortality, VT predictor of sudden death, low LVEF and advanced age predictors of death by heart failure.

Conclusions: Several causes were frequently implicated: therefore complete evaluation remains necessary. Coronary ischemia was present in 18 % of patients with syncope after myocardial infarction; it was the sole cause in 11 % of our population. Syncope remained unexplained more frequently in women than in men. Hypervagotonia explains syncope in only 8 % of our population.

Major bleeding still predicts death with a radial invasive strategy in NSTE-ACS: an analysis from theABOARD Study

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Aim: We sought to determine the incidence and type of major bleeding in moderate-to-high risk acute coronary syndromes (ACS) treated with intense antiplatelet therapy and systematic invasive strategy using predominantly the radial approach. We also examined whether these bleedings has an impact on mortality after multivariable adjustment.

Methods: In the multicenter randomized ABOARD study, 352 patients with acute coronary syndromes without ST-segment elevation were randomized for a “primary PCI” strategy or a strategy of intervention deferred to the next working day. No difference was observed in clinical outcomes between the two groups. Major bleeding complications (STEERIPLE definitions) were correlated to 1 month mortality.

Results: Patients were treated by intense antiplatelet therapy; with a mean 660 mg (±268) loading of clopidogrel and 111 mg (±40) maintenance dose while 99% of the PCI patients receive abximab the radial approach was predominant (84 %).

During the first 30 days major bleeding complications occurred in 19 patients (5.4%) with transfusion in 16 patients (4.5%). Occurrence of major bleeding did not differ between immediate and delayed intervention. The most frequent overt bleeding complications were from the gastrointestinal tract. The composite of GI bleeding and occult bleeding (loss of Hb of >3 g/dL) represented n=11 (57.9%) of all major bleeding complications. Major bleeding was associated with a significantly higher peak of creatinine during hospitalization 170±16 µmol/L, ± 169.34 vs. 97.05 µmol/L, ± 56.96. (p=0.005) and a higher mortality rate 26.3% vs. 0.6%. After adjustment for all baseline characteristics, major bleeding was independently associated with an increased mortality after the first 30 days (Odd ratio 75.7; 95% CI, 11.3 to 505.3; p<0.0001).

Conclusion: In a population of radial catheterization for NSTEACS, GI bleeding is the most frequent bleeding complication. Despite the reduction of access site bleeding, major bleeding still remains a major independent predictor of mortality.