

Primary Percutaneous Coronary Intervention in Nonagenarians

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Background: The optimal treatment of very elderly patients with ST elevation myocardial infarction (STEMI) is not yet defined. They are a population with increased risk for complications and death. On the other hand, they are the ones who have better absolute benefit from reperfusion treatments when compared with younger patients. The aim of this study is to present the feasibility and safety of primary percutaneous coronary intervention (PPCI) in nonagenarians. Primary end point is in-hospital and 30 day all cause mortality.

Methods: A retrospective analysis of patients aged 90 years and older who underwent PPCI due to STEMI between 2001-2009 was performed.

Results: 45 patients fulfilled the study criteria (median age 94; range 90-102; 60% women). Procedural success rate was 80%. Bare metal stent was implanted in all of the patients. Cardiogenic shock was present in 5 (11%). Procedural mortality was 11% (5 out of 45 patients). 1 patient died at 30 day follow up due to severe stroke. All 3 patients in Killip class III-IV at admission died within 30 days, compared with only 2 of 30 patients in Killip class I-II ($p= 0.048$).

Conclusion: Although PPCI is feasible in nonagenarians suffering from STEMI, the short term mortality is high, especially in those patients presenting in cardiogenic shock and/or severely depressed myocardial function.