

Impact of Renal Failure on Outcomes in Elderly Patients (≥ 75 y) Undergoing Primary PCI for Acute Myocardial Infarction

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Background: Renal failure (RF) is associated with a worsened prognosis following acute myocardial infarction (AMI). However, the prognostic importance of RF in elderly patients (pts) undergoing primary PCI for AMI has not been well characterized.

Goal: This study aimed to evaluate the impact of RF in pts ≥ 75 yrs undergoing primary PCI for ST elevation myocardial infarction (STEMI). Methods: We used our database consisting of 1494 pts treated by primary PCI for STEMI between 1/2001 and 6/2009 excluding pts with cardiogenic shock and late arrival (>12 hours). We evaluated the clinical results of treated elderly pts distinguished according to two groups (46 pts with GFR <60 and 106 pts ≥ 60 l/min/1.73m²).

Results: Compared to pts without RF, pts with RF were more likely to be female (52% vs 39%; p=0.04) and diabetics (48% vs 27%; p=0.005). One year mortality was markedly increased in pts with vs. without baseline RF (42% vs 13%, P=0.001). The rates of re-MI (16% vs 7.4%, P=0.04) as well as of MACE (56% vs 28%, P=0.0002) were also prominently increased.

Conclusion: 1). Elderly pts with RF undergoing primary PCI for STEMI had three times mortality rate and twice the rate of Re MI and MACE, 2). These findings can be explained only in part by female preponderance and increased incidence of diabetes mellitus in pts with RF, 3). New approaches are needed to improve the very poor prognosis of elderly pts with RF and AMI.