

In-hospital Reperfusion Interventions after Acute Myocardial Infarction and their Impact on One-year Mortality in Different Risk Groups of Patients

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BACKGROUND: The effect of reperfusion therapy on acute myocardial infarction (AMI) survivors and its interaction with comorbidities has not been fully elucidated. The aim of the study was to analyze the impact of reperfusion on 1-year mortality of post-AMI patients in relation to their case-mix. **METHODS:** Retrospective analysis of 2733 AMI patients (age: 66±13y, 70% males) who survived hospitalization during 2002-2004. Risk index for one-year mortality was developed and validated in this group and included: age, laboratory data tests, ventricular dysfunction and comorbidities. The total score for each patient was calculated as sum of weighed impacts of these parameters. Patients were divided into the 3 risk groups based on total score values of the index. Patients were considered as reperfused if they received reperfusion during the initial hospitalization. The primary endpoint was post-discharge one-year all-cause mortality. The impact of reperfusion in each group was assessed by comparison of mortality rates between the reperfused and non-reperfused patients.

RESULTS: The main results are presented in the table below:

Risk group (n)	Mortality, %	Reperfusion, %	OR (CI 95%)	p
Low (912)	0.5	66.7	0.12 (0.014-1.11)	0.062
Medium (910)	7.3	53.4	0.33 (0.19-0.57)	<0.001
High (911)	29.5	32.2	0.39 (0.27-0.55)	<0.001

Calculated total risk index for the reperfused and non-reperfused patients in the high risk group were similar. **CONCLUSIONS:** The reperfusion rate in the high risk group was low. However, high risk patients selected for reperfusion benefited from the intervention. We conclude that more high risk patients would probably benefit from reperfusion.