

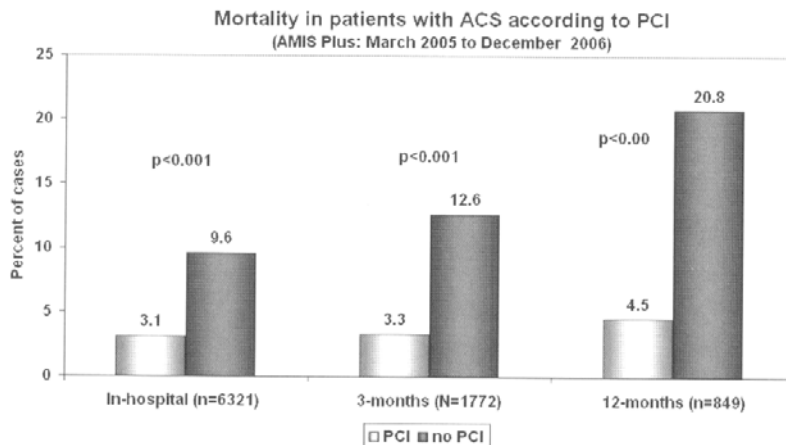
Better outcome with primary percutaneous coronary intervention in unselected patients with acute coronary syndrome. A report from the AMIS Plus Registry

P. Erne, D. Radovanovic, F. Eberli, P. Urban, J.-C. Stauffer, H. Rickli, O. Bertel, S. Windecker for the AMIS Plus Investigators

Background: Timely percutaneous coronary intervention (PCI) can be considered a valuable initial mode of revascularisation in all high-risk patients presenting with acute coronary syndrome (ACS). PCI has been associated with an improved short-term outcome in some studies of PCI versus conservative treatment in highly selected patients, but short-term and especially long-term outcome is not well established in unselected patients.

Methods: Between March 2005 and December 2006, 6321 ACS patients from 53 Swiss hospitals were enrolled in the AMIS Plus Registry. Only patients, who provided consent for active follow-up at 3 months and 1 year were included in the present analysis. PCI was termed "primary", when it constituted the initial reperfusion strategy and was performed within 24 hours of symptom onset. Major adverse cardiac events were defined as composite of death, myocardial infarction and rehospitalization and were assessed prospectively at 3 months and 1 year follow-up. Odds ratios (OR) with 95% confidence interval (95%CI) were calculated using logistic regression.

Results: During the initial hospitalization, 3884/6321 (61.4%) of patients underwent PCI. Follow-up was complete in 96.6% of 1837 patients at 3 months, and in 96.3% at one year. The unadjusted overall mortality was 5.6% for the in-hospital period, 6.9% at 3 months and 11.1% at 1 year follow up. Primary PCI was associated with statistically significant lower mortality at all time points (in-hospital, 3 months, 1 year) (figure). When adjusted for age, gender and comorbidities (Charlson index) primary PCI was also associated with lower mortality for the in-hospital period (OR 0.57 [0.44–0.73]; $p < 0.001$), at 3 months (OR 0.19 [0.04–0.88]; $p = 0.035$), and 1 year (OR 0.31 [0.13–0.76]; $p = 0.010$). As compared with medical treatment, primary PCI significantly reduced the risk of MACE at 3 months (adjusted relative risk of 0.64 [0.48–0.87]; $p = 0.004$) and at 1 year follow up (adjusted relative risk of 0.59 [0.39–0.87]; $p = 0.008$).



Conclusion: In an unselected large population of patients treated for ACS between March 2005 and December 2006, primary PCI was associated with improved survival and lower rates of major adverse cardiac events compared with medical treatment.