

P4198 : Cardiogenic shock incidence in relation to medical management and outcome: ten year results from a nationwide registry

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On behalf: AMIS Plus Investigators

Topic(s):

Epidemiology / prevention of CAD

Citation:

European Heart Journal (2008) 29 (Abstract Supplement), 691

Purpose: To assess the association between improved treatment, incidence, and mortality in cardiogenic shock (CS).

Methods: The nationwide Acute Myocardial Infarction in Switzerland (AMIS Plus) registry enrolled 23,696 acute coronary syndrome (ACS) patients 1997-2006. Applied treatment, CS incidence, and determinants of in-hospital mortality and CS development during hospitalization were analyzed with special regard to CS on admission vs. CS developing during hospitalization.

Results: Rates of overall CS (n=1,977, 8.3% of all ACS patients; $p<0.01$ for temporal trend) and CS during hospitalization (n=1,413, 6.0% of all ACS patients and 71.5% of CS patients; $p<0.0001$) declined, while rates of CS on admission remained unchanged (n=564, 2.3% of all ACS patients and 28.5% of CS patients; Fig.). Rates of percutaneous coronary intervention (PCI; 65.9% in 2006; $p<0.001$) and intra-aortic counterpulsation (37.1% in 2006; $p<0.01$) increased, while rates of thrombolysis decreased (5.1% in 2006; $p<0.01$). In-hospital mortality decreased to 47.7% in overall CS ($p<0.01$), to 46.6% in CS on admission ($p=0.009$), and, to a lesser extent, to 48.9% in CS during hospitalization ($p=0.094$). While CS was the most important independent predictor of in-hospital mortality in patients with ACS (adjusted OR 20.8, 95% CI 16.1-27.1; $p<0.001$), PCI was an independent predictor of both survival (adjusted OR 0.37 for in-hospital mortality, 95% CI 0.28-0.49; $p<0.001$) and CS development during hospitalization (adjusted OR 0.70, 95% CI 0.56-0.87; $p=0.002$).

Conclusions: During the last decade, increased PCI rates were associated with both decreased in-hospital mortality rates among patients with CS and decreased rates of CS development during hospitalization among patients with ACS. Thus, in patients with ACS PCI may prevent CS.

