

Temporal trends in reperfusion therapy of diabetic and non-diabetic patients with ST-elevation acute myocardial infarction admitted within 24 hours of the onset of chest pain from 1997 to 2003

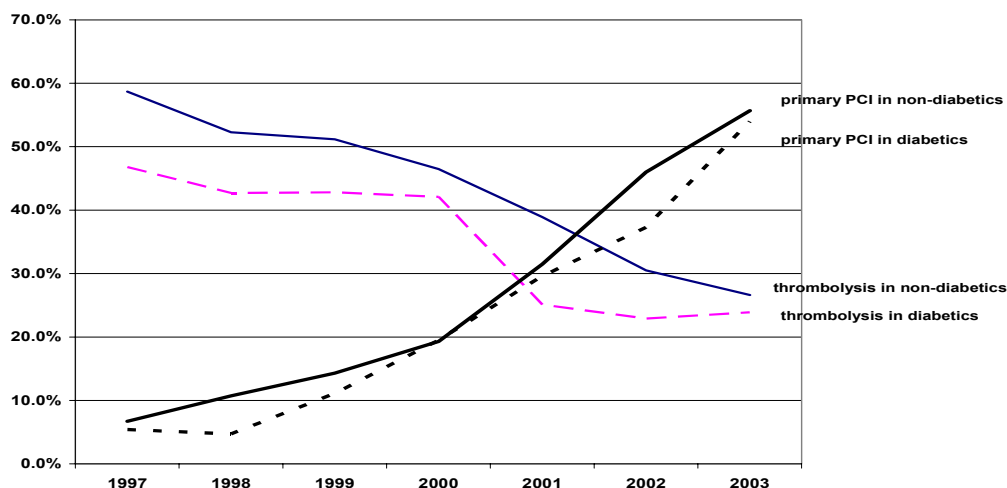
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Background Diabetes remains an important morbidity factor and there are indications that patients with diabetes do not received extensive treatment as non-diabetics.

Aim to determine trends in the reperfusion therapy in diabetic and non-diabetic patients with STEMI and or LBBB between 1997 and 2003 in Switzerland.

Methods and results Using data from AMIS Plus (acute myocardial infarction in Switzerland) from 1997 to 2003 included were the patients with STEMI or LBBB, admitted within 24h of the onset of chest pain. 6378 met inclusion criteria. 74% of patients were male and 26% female; 1168 (18.3%) were diabetic, 5210 (81.7%) non-diabetic patients. Age of non-diabetic patients was 63.2y (± 13.4 y) and of diabetic 67.7y (± 11.6 y) ($p < 0.001$). During the last seven years diabetes incidence varied not significantly between 18.4% in 1997, to 21.3% in 1999 and 16.4% in 2003 ($p = 0.271$). Primary coronary intervention increased overall from 6.5% in 1997 to 54.9% in 2003 ($p < 0.001$) while thrombolysis declined from 56.7% to 26.2% ($p < 0.001$).

Use of reperfusion therapy in diabetics (n=1164) and non-diabetic patients (n=5207) with STEMI admitted within 24h of symptom onset



In 1997 major adverse cardiac events (stroke, re-infarction and death) (MACE) occurred in 13% of non-diabetic patients and in 21.7% of diabetic patients. In 2003 10.4% non-diabetic patients had MACE and 8.1% of non-diabetic patients. The differences were significant for diabetics ($p = 0.006$) as well as for non-diabetic patients ($p < 0.001$). In-hospital mortality decreased between 1997 and 2003 in patients with diabetes from 16.7% to 8.0% ($p = 0.013$) and patients without diabetes from 8.8% to 6.1% ($p < 0.001$). Diabetes was the strongest mortality predictor in patients with STEMI arriving within 24 h after symptom started with OR 1.76 (95% CI 1.43; 2.18; $p < 0.0001$) even after adjusted for age and sex (OR 1.74; 95% CI 1.41; 2.14; $p < 0.0001$). **Conclusion** Trends in use of reperfusion therapy in diabetic patients is the same as in non-diabetic patients in Switzerland. However the diabetic patients did not received as much extensive treatment as non-diabetics and had worse prognosis.