Long-term results after acute percutaneous transluminal coronary angioplasty in acute myocardial infarction and cardiogenic shock

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The aim of this study was to determine the long-term outcome in unselected, consecutive patients after acute percutaneous transluminal angioplasty (PTCA) for acute myocardial infarction (AMI) complicated by cardiogenic shock. This involved a follow-up study from a prospectively conducted patient registry in a tertiary referral center. A total of 59 patients (10 female/49 male; median age 62 years (32-91)) with percutaneous transluminal cardiac interventions in primary cardiogenic shock were identified between January 1995 and January 2000. Twenty-two patients (37%) had been resuscitated successfully before intervention. The in-hospital mortality of shock patients was 36% (n=21, median age 68 (47-84)). The median follow-up of survivors was 18.1 (7-57.3) months, during which three further patients died (8%; two because of sudden cardiac deaths, one because of acute reinfarction). Achievement of thrombolysis in myocardial infarction (TIMI) flow III after acute PTCA (84% in survivors vs. 38% in non-survivors; P<0.001) and the absence of the left main coronary artery (3% survivors vs. 29% non-survivors; P=0.003) as culprit lesion in patients with cardiogenic shock was strongly associated with an improved survival rate. A second cardiac intervention was performed in seven patients (18%). Overall functional capacity of shock survivors was good. At final follow-up, 80% of the survivors were completely asymptomatic. One patient had angina pectoris NYHA II, five patients dyspnoea NYHA class II. Exercise stress-test was performed in 24 of the 38 surviving patients, median exercise capacity was 100% (range 55-113%) of the age adjusted predicted value. In unselected patients with cardiogenic shock due to AMI, treatment with acute PTCA resulted in an in-hospital mortality of 36%, low late mortality and good functional capacity in long-term survivors. TIMI flow grade III after acute PTCA in patients with acute myocardial infarction complicated by cardiogenic shock was strongly associated with an improved survival rate whereas the left main coronary artery as culprit lesion was associated with worse outcome.