1550890

Temporal trends in the management and outcome of patients with STEMI presenting with cardiogenic shock

Greenberg, G; Assali, A; Vaknin-Assa, H; Brosh, D; Teplitsky, I; Battler, A; Kornowski, R; Lev, E
Rabin Medical Center, Petah-Tikva, Israel

Background: Acute ST-elevation myocardial infarction (STEMI) presenting with cardiogenic shock is associated with dismal prognosis. In the recent decade significant advances have been made in both catheter-based reperfusion techniques and adjunctive pharmacological treatment. It is not clear whether these advances have any impact on the prognosis of patients (pts) with STEMI who present with cardiogenic shock. Our aim, was to assess the outcomes of these pts during the past decade and identify major factors that impact the prognosis.
Methods: We employed our primary PCI registry, which includes all pts with STEMI who underwent primary PCI between 2001 and 2008 in the Rabin Medical Center. We identified 131 pts who presented with cardiogenic shock and underwent primary PCI. Pts were allocated into 2 groups based on the period of presentation: 1st period: 2001-2004 (n=70), and 2nd period: 2005-2008 (n=61). Clinical and angiographic characteristics as well as outcome up to 6 months were evaluated.
Results: Clinical characteristics and outcome are shown in the Table. Despite the younger mean age, lower proportion of patients with renal failure and higher rates of stent use, mortality did not differ and remained high in both periods (>50% at 6 months). Use of intra-aortic balloon pump (IABP) did not differ between the periods (72-77%). In a multivariate analysis model, factors which were associated with 1 month mortality were: diabetes (OR=4, CI 1.3-13, P=0.02), LVEF<40% (OR=1.8, CI 1.2-2.8, P=0.009), GFR<60 ml/min/m² (OR=1.8, CI 1.2-2.6, P=0.002) and trend for the use of glycoprotein (GP) IIb/IIIa inhibitors (OR=0.4, CI 0.1-1.05, P=0.07).
Conclusion: Despite changes in the clinical characteristics and management of pts with STEMI presenting with cardiogenic shock and treated with primary PCI during the past decade, the prognosis remains poor. It is possible that further use of measures such as IABP or GP IIb/IIIa inhibitors may improve outcome.

Variable	1st Period, n=70	2nd Period, n=61	P value
Age (years)	70±12	64±13	0.002
Male (%)	64	72	0.3
Diabetes (%)	31	23	0.3
GFR<60ml/ min/m² (%)	57	38	0.04
Anterior Wall MI (%)	50	63	0.2
LVEF<40% (%)	83	80	0.7
Multi-vessel disease (%)	77	79	0.9
Stent Deployment (%)	89	98	0.03
Intra Aortic Balloon Pump use (%)	77	72	0.5
GP IIb/IIIa inhibitor use (%)	57	54	0.7
1 month stent thrombosis (%)	1.4	1.6	0.9
1 month re-infarction (%)	6	5	0.8
1 month death (%)	53	43	0.2
6 month death (%)	59	52	0.4