Clinical Contrast Research of Optimal Time Window in Direct PCI Treatment of Elderly Patients with Acute Myocardial Infarction

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Objectives To investigate the optimal time window in treatment of elderly patients with acute myocardial infarction and primary percutaneous coronary intervention (PCI).
Methods 196 patients were divided into three groups according to their symptom-to-balloon time: group A (<3 h, n=48), group B (≥3 h, <6 h, n=67) and group C (≥6 h, <12 h, n=81). Achievement of TIMI grade 3 blood flow, degree of ST-segment resolution, left ventricular ejection fraction (LVEF) and the incidence of major adverse cardiac events (MACE) in hospital were compared among the three groups.

Results The rate of postoperative TIMI grade 3 and LVEF in group A was significantly higher than those in group B and group C. The incidence of no ST-segment resolution and MACE in hospital in group A were significantly lower than those in group B and group C. There were no differences between group B and group C in terms of TIMI grade 3 achievement, ST-segment resolution, LVEF and incidence of MACE in hospital.

Conclusions Compared with PCI 3 h after the onset of symptom, early PCI (<3 h) can improve the rate of TIMI grade 3 achievement, myocardial reperfusion and LVEF and reduce MACE in hospital.