THE SHORT-TERM EFFECTS OF PRE-TREATMENT OF STATINS ON REPERFUSION AND SHORT-TERM CLINICAL PROGNOSIS AFTER PERCUTANEOUS CORONARY INTERVENTION IN PATIENTS WITH NON-ST-SEGMENT ELEVATION ACUTE CORONARY SYNDROME

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Objective To evaluate the effect of pre-treatment with statin on the reperfusion and short-term clinical prognosis in patients with non-ST-segment elevation acute coronary syndrome (NSTE-ACS) who underwent successful primary percutaneous coronary intervention (PCI).

Methods A total of 162 consecutive high-risk NSTE-ACS patients undergoing PCI received simvastatin for 3 days before PCI. The patients were randomly divided into two groups: standard statin group (20 mg simvastatin, n=81) and intensive statin group (80 mg simvastatin, n=81). The difference of TIMI and myocardial blush grade (MBG) of target arteries before and after PCI, serum level of CK-MB at 24 h, LVEFand the incidence of main adverse cardiac events (MACE) at 30-day follow-up were examined in the 2 groups.

Results The percentage of TIMI grade 2–3 flow and MBG 2–3 perfusion were significantly higher in intensive statin group than that in standard statin group before PCI (p<0.05). The TIMI grade 3 flow in intensive statin group showed similar result to that in standard statin group after PCI, but the percentage of MBG 2–3 perfusion in intensive statin group was significantly higher than that in standard statin group (p<0.05). The incidence of increased CK-MB in intensive statin group was significantly lower than that in standard statin group (p<0.05). The LVEF in intensive statin group was higher than that in standard statin group (p<0.05). It also showed lower incidence of MACE (p<0.05) in intensive statin group than that in standard statin group during 30 days after PCI.
Conclusion Pre-treatment with high-dose statin for 3 days before PCI could improve the coronary flow, myocardial perfusion and heart function, attenuate the risk of MACE during 30 days after PCI in high-risk NSTE-ACS patients.