THE EFFECTS OF LOADING DOSE OF SIMVASTATIN ON VASCULAR ENDOTHELIA FUNCTION AND VASCULAR INFLAMMATION IN PATIENTS WITH UNSTABLE ANGINA PECTORIS UNDERGOING PERCUTANEOUS CORONARY INTERVENTION

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Objective To explore the effects of loading dose of simvastatin on vascular endothelia function and vascular inflammation after percutaneous coronary intervention (PCI) in patients with unstable angina pectoris (UAP).

Methods 50 patients with UAP were divided into loading simvastatin group (before PCI, given loading dose of 40 mg and persistent dose of 20 mg simvastatin) (25 patients) and convention group (no given loading dose, but persistent dose of 20 mg simvastatin) (25 patients). we examined the blood express levels of ET-1, NO and hs-CRP from before treatment and the second day after the treatment of PCI in both group. Then the patients in loading simvastatin group received simvastatin tablet (loading dose of 40 mg and persistent dose of 20 mg simvastatin)treatment for 6 weeks (40 mg QN), and compared the results with control group.

Results The serum levels of ET-1 and hs-CRP in UAP patient increased significantly (all p<0.01), while the level of NO decreased significantly (p<0.05) compared with healthy control group and stable angina pectoris (SAP), and the serum levels of ET-1 and hs-CRP increased significantly in post-PCI group, while the level of NO decreased significantly (p<0.05), compared with pre-PCI group. In loading dose of simvastatin treatment group, the serum levels of ET-1 and hs-CRP decreased significantly (all p<0.05), while the level of NO increased significantly (p<0.05) compared with no loading dose conventional treatment group. There were less adverse events (acute myocardial infarction, cardia sudden death and thromboembolism) in loading dose of simvastatin group than in the convention group.

Conclusions Simvastatin can inhibit inflammation and protect vascular endothelia function of patient after the treatment of PCI, loading dose of simvastatin group more effective than conventional treatment group. It was security and efficacy, but more sample were needed to further study and verify the result.