Influence of atorvastatin on load dosage and high maintenance dosage on vascular endothelial function, platelet activation and inflammatory factor of patients with acute coronary syndrome after interventional therapy

TIAN Yu-long, XING Yu-liang, GE Zhong-chun, BAI Song

(Department of Cardiology, People's Hospital of Xuyi County, Huaian 211700, China)

[Foundation Project]: It is supported by Science and Technology Planning Project of Jiangsu Province (BE2012791).

[Author]: TIAN Yu-long (1965-), Male, Associate Chief Physician, M. B., Tel: 15152820333, E-mail: tianyulong88@163.com.

Received: 2014-10-28 Revised: 2014-11-12

View from specialist: It is creative, and of certain scientific and educational value.

[ABSTRACT] Objective: To investigate the influence of atorvastatin on load dosage and high maintenance dosage on vascular endothelial function, platelet activation and inflammatory factor of patients with acute coronary syndrome after interventional therapy. Methods: A total of 120 cases of with acute coronary syndrome were randomly divided into the conventional dose group and the load dosage group according to the order of treatment by half. Two groups both were given with routine drug therapy and percutaneous coronary intervention (PCI), in addition the conventional dose group were given atorvastatin 20 mg/d, load dosage group were given atorvastatin 80 mg in the before surgery, 40 mg/d maintenance dose after surgery. Treatment course was 4 weeks. Changes of platelet activation and endothelial function, inflammatory factor levels were compared before and after treatment in two groups. Results: After PCI, ET-1, CD62P and GP II b/III A levels of the two groups were increased, NO level were decreased, but the two groups showed no significant difference (P>0.05). After operation 4 weeks, ET-1, CD62P and GP II b/III a levels of loading dose group were significantly decreased, NO levels were significantly increased, compared with the preoperative PCI and conventional dose group the differences were statistically significant (P<0.05), the level of inflammatory factors of the two groups after PCI treatment were significantly increased than that before (P<0.05), but no significant difference between the two groups (P>0.05). IL-6, TNF- alpha and hs-CR levels of loading dose group after the PCI operation 4 weeks, were significantly decreased, and the difference compared with the control group were statistically significant (P<0.05). Conclusion: Atorvastatin on load dosage and high maintenance dosage on can effectively improve the acute coronary syndrome of vascular endothelial function in patients with postoperative PCI, inhibit platelet activation and inflammatory reaction. It has good clinical effect, and is worthy of popularizing and application.

[KEY WORDS] Atorvastatin; Acute coronary syndrome; Vascular endothelial function; Platelet activation; Inflammatory factor