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EFFECTS OF JIAWEI BUYANG HUANWU DECOCTION ON VASCULAR STENOSIS AND TGF- β 1 AFTER BALLOON INJURY OF RABBIT ILIAC ARTERY

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Objectives To investigate the effects of Jiawei Buyang Huanwu Decoction on vascular stenosis and transforming growth factor - β 1 (TGF- β 1) after iliac artery were injured by balloon in diet-induced atherosclerotic rabbits.

Methods 24 male New Zealand albino rabbits were equally randomized into control group, model group and drug group. The iliac arteries of the rabbits in the latter two groups were subjected to balloon injury. Four weeks later, serum TGF- β 1 level was assayed, Endothelial hyperplasia, eNOS Protein and mRNA expression were observed in injured iliac artery.

Results Optical microscope revealed narrowed vascular lumen, thicken intima and numerous arteriosclerotic plaques in the model group compared with the control group, whereas the vascular lumen and intima thickness remained basically normal in drug group. The serum TGF- β 1 level was lower in drug group than that of model group, Immunohistochemistry and RT-PCR results showed that eNOS protein and mRNA expression was lower in rabbit iliac artery of drug group than that in model group.

Conclusions Jiawei Buyang Huanwu Decoction can lessen intimal hyperplasia and vascular stenosis in iliac artery injury rabbits, and the mechanism of which may be related to decrease in TGF- β 1 protein and gene expression.