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THE EFFECT OF JIAWEI BUYANG HUANWU DECOCTION ON THE NO SYSTEM AFTER ILIAC ARTERY BALLOON INJURED IN RABBITS

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Objectives To investigate the effect of Jiawei Buyang Huanwu Decoction in preventing vascular restenosis and on the nitric oxide (NO) system after rabbit iliac artery balloon injury.

Methods 24 male New Zealand albino rabbits were equally randomised 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 NO synthases (NOS) activity and endothelial nitric oxide synthase (eNOS) 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 NO level and total NOS activity were lower in model group than that of control group and drug group, while there is no difference between the latter two. Immunohistochemistry and RT-PCR results showed that eNOS protein and mRNA expression was stronger in rabbit iliac artery of control group and drug group than that in model group.

Conclusions Jiawei BHD can lessen intimal hyperplasia and vascular stenosis in iliac artery injury rabbits, this effect is possibly related with that Jiawei BHD activated the NO system.