

论著

卡托普利对高血压心脏钙调蛋白磷酸酶与核因子 κ B p65蛋白表达的影响

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收稿日期 2005-4-4 修回日期 2005-8-29 网络版发布日期 2008-7-13 接受日期 2005-8-29

摘要

目的: 探讨卡托普利对高血压大鼠心脏钙调蛋白磷酸酶 (calcineurin)、核因子 κ Bp65 (NF κ Bp65) 蛋白表达影响及其机制。方法: 建立腹主动脉缩窄高血压大鼠模型, 术后1周用卡托普利治疗, 连续10周。以尾动脉测压法观察血压变化, 用免疫组织化学和形态计量学方法, 观察calcineurin、NF- κ Bp65在心脏表达和心脏系数的变化。结果: 经卡托普利治疗, 高血压大鼠血压降低 (mmHg, $P < 0.01$), 心脏系数显著减小 (g/100 g, $P < 0.01$), 心脏calcineurin和NF- κ Bp65蛋白高表达下调, 阳性表达面积和面积百分比缩小 (μm^2 , $P < 0.01$, 或 $P < 0.01$)。结论: 卡托普利能通过调控信号转导通路calcineurin-NFAT-NF- κ Bp65关键蛋白表达, 逆转高血压心血管重构。

关键词 [高血压](#) [钙调蛋白磷酸酶](#); [NF- \$\kappa\$ B](#); [卡托普利](#); [信号转导](#)

分类号 [R363](#)

Effects of captopril on expression of calcineurin and NF- κ B p65 in the heart of hypertensive rats

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Abstract

<P>AIM: To study the effect of captopril on calcineurin and NF- κ B p65 in the signal transduction pathway of the cardiovascular remodeling in hypertensive rats.
METHODS: Using a animal model of hypertension induced by abdominal aortic banding, the rats were treated with captopril for 10 weeks. The blood pressure was observed with a tail cuff method. The heart weight and heart weight/body weight were measured. The expression of calcineurin and NF- κ B p65 were studied by using immunohistochemistry. RESULTS: After treated with captopril, the blood pressure of the model rats was decreased ($P < 0.01$), the heart weight or heart weight/body weight were also decreased ($P < 0.01$). The calcineurin and NF- κ B p65 protein overexpression was down-regulated, NF- κ B-positive area and area percentage were reduced in the heart of hypertensive rats ($P < 0.01$, $P < 0.01$). CONCLUSION: Captopril reverses the cardiovascular remodeling by affecting the overexpression of calcineurin and NF- κ B p65 involved in the cardiovascular remodeling in hypertensive rats.</P>

Key words [Hypertension](#) [Calcineurin](#) [NF-kappa B](#) [Captopril](#) [Signal transduction](#)

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