

论著

前胡香豆素组分对心脏肥厚大鼠心脏血流动力学、心肌顺应性及胶原含量的影响

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摘要 目的 从中草药中寻找更有效的既能降压又能改善左心室重构及功能的药物。方法 用两肾一夹方法制作肾血管性高血压左心室肥厚(LVH)大鼠模型。前胡香豆素组分预防组和逆转组分别从术后第6周和第9周开始给药, 30 mg·kg⁻¹·d⁻¹, ig, 连续9周。制备大鼠离体工作心脏, 观察心脏收缩及舒张性能、血流动力学和心肌顺应性变化, 并测定心肌羟脯氨酸含量。结果 与LVH对照组相, 前胡香豆素组分预防组和逆转组大鼠-dp/dt_{max}分别增加19.4%和15.3%; LVEDP分别降低32.5%和25.6%; 两组左室压力-容积曲线均向右下移位; 左室心肌羟脯氨酸含量分别降低22.6%和23.4%。结论 前胡香豆素组分可改善LVH大鼠心脏舒张功能, 提高心肌顺应性, 降低心肌胶原含量。

关键词 [前胡香豆素](#) [高血压](#) [肾血管性](#) [心脏](#) [肥厚](#) [血流动力学](#) [羟脯氨酸](#) [心肌顺应性](#)

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Effects of praeruptorum coumarin on heart hemodynamics, myocardial compliance and collagen content in heart hypertrophy rats

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Abstract

AIM To explore an excellent drug for therapy of cardiac hypertrophy from chinese traditional herb. **METHODS** Two-kidney-one-clip (2K1C) renovascular hypertensive model was used to establish left heart hypertrophy(LVH), praeruptorum coumarin(PC) 30 mg·kg⁻¹·d⁻¹ was given ig for 9 weeks from the 6th week or 9th week after 2K1C operation for preventive group or reverse group respectively. The isolated Langendorff's heart was made to study the effect of PC on hemodynamics and myocardial compliance, and myocardial hydroxyproline content was studied. **RESULTS** The -dp/dt_{max} in PC preventive and reversive groups increased 19.4% and 15.3% than that of LVH group, while LVEDP decreased 32.5% and 25.6%, respectively, the PV curves of the both groups were shifted to right and below. Hydroxyproline content of left ventricle in the both groups was lower than that of LVH group by 22.6% and 23.4%. **CONCLUSION** PC has the effect of preventing and reversing LVH and improving cardiac function and myocardial compliance in renovascular hypertensive LVH rats.

Key words [Praeruptorum coumarin](#) [hypertension](#) [renovascular](#) [heart hypertrophy](#) [hemodynamics](#) [hydroxyproline](#) [myocardial compliance](#)

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