

法舒地尔治疗慢性心力衰竭的临床疗效

【摘要】 目的：观察法舒地尔对慢性心力衰竭 (CHF) 的临床疗效及血浆脑钠肽 (BNP) 的影响。方法：将 100 例心功能 (NYHA) II ~ III 级慢性心力衰竭患者随机分为治疗组和对照组，各 50 例。两组均给予常规治疗：利尿剂、口服血管紧张素转换酶抑制剂、地高辛等，治疗组在此基础上静脉滴注法舒地尔 60 mg/d，治疗前后观察两组患者血浆脑钠肽浓度变化及采用超声心动图、6 min 步行实验等方法进行疗效观察。结果：两组治疗后 BNP、心功能、6 min 步行实验距离均明显改善 ($P < 0.01$)，治疗组较对照组更明显，BNP 降低显著 (398.2 ± 105.3) / (456.5 ± 106.4) ng/L ($P < 0.05$)，左室射血分数 (LVEF) 分别为 (53.4 ± 9.9) / (46.5 ± 8.3)%，左室射血分数增加明显 ($P < 0.05$)，6 min 步行距离明显增加 (419.2 ± 71.6) / (382.5 ± 53.7) m ($P < 0.05$)。结论：法舒地尔能有效降低慢性心衰患者血浆 BNP，改善心功能。

【关键词】 法舒地尔；慢性心力衰竭；脑钠肽；6 min 步行实验

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【Abstract】 Objective :To explore the difference of brain natriuretic peptide(BNP) concentration and clinical effects in patients with chronic heart failure who received Fasudil treatment.Methods :One hundred chronic heart failure patients with cardiac function(NYHA) II-III were randomly divided into the treatment group(n=50) and the control group(n=50).The two groups were given conventional treatment, including diuretics, oral angiotensin-converting enzyme inhibitors, digoxin.Patients in treatment group on the basis of this treatment were treated with Fasudil 60 mg/d.The plasma levels of BNP was detected, LVEF and CO were observed by echocardiography, and the exercise endurance were evaluated by 6-minutes walking test before and after the treatment.Results :The plasma levels of BNP, left ventricular function(LVFF) and the distance of 6-minutes walking test were significantly improved after therapy in two groups($P < 0.01$), especially in the treatment group($P < 0.05$).The concentrations of BNP in treatment group were significantly decreased(398.2 ± 105.3) / (456.5 ± 106.4) ng/L ($P < 0.05$).LVEF of the patients in treatment group were increased significantly(53.4 ± 9.9) / (46.5 ± 8.3)% ($P < 0.05$).The distance of 6-minutes walking test of the patients in the treatment group were also significantly increased(419.2 ± 71.6) / (382.5 ± 53.7) m ($P < 0.05$).Conclusion :Fasudil can significantly improve cardiac function and decrease plasma BNP level of chronic heart failure patients.

【Key words】 Fasudil; Chronic heart failure; Brain natriuretic peptide; 6-minutes walking test

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慢性心力衰竭 (chronic heart failure, CHF) 是一种以心室功

能不全、神经内分泌激活和外周血流分布异常为特征的病理生理综合征，是心血管疾病中引起死亡的主要原因之一。冠心病

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是引起慢性心力衰竭的常见病因。法舒地尔是一种为目前临床应用的 Rho 激酶抑制剂,有扩张血管的作用,广泛用于临床(如冠心病心绞痛的治疗)。笔者所在科室应用盐酸法舒地尔治疗冠心病慢性心力衰竭患者 50 例,通过慢性心力衰竭患者治疗前后血压、心率、BNP 水平及超声心动图 LVEF 等、6 min 步行实验

表1 两组患者一般临床资料比较

组别	年龄(岁)	性别例(%)		高血压例(%)	糖尿病例(%)	心房颤动例(%)	NYHA 心功能分级例(%)	
		男	女				级	级
治疗组(n=50)	64.5 ± 6.6	30(60)	20(40)	20(40)	15(30)	5(10)	28(56)	22(44)
对照组(n=50)	65.6 ± 7.1	29(58)	21(42)	21(42)	14(28)	7(14)	30(60)	20(40)
P 值	>0.05	>0.05		>0.05	>0.05	>0.05	>0.05	

3 讨论

Rho 激酶系统是一种介导血管平滑肌细胞对多种血管活性物质如血管紧张素、内皮素等产生收缩反应的小分子蛋白激酶^[2-3], 动物实验表明 Rho 激酶抑制剂可有效抑制血管收缩^[4-5], 人体实验亦得到相应结果^[6]。法舒地尔是 Rho 激酶抑制剂, 可抑制 Rho 激酶参与的细胞黏附, 细胞迁移, 平滑肌细胞收缩, 胞质分裂的调节, 从而抑制了动脉粥样硬化的发生与发展, 增加冠脉血流量。有实验发现法舒地尔治疗小型猪 8 周后使动脉粥样硬化斑块明显消退^[7], 法舒地尔还可抑制心室肥厚^[8], 抑制炎症反应^[9], 动物实验显示法舒地尔可以缓解心力衰竭症状^[10-11]。本研究显示, 冠心病慢性心衰患者在常规给予 ACEI、利尿剂、洋地黄制剂、血管扩张剂和受体阻滞剂常规治疗基础上, 给予法舒地尔治疗, 两组患者在疗程结束后行多普勒超声心动图及 6 min 步行实验等各项指标均较治疗前改善, 法舒地尔组在治疗后 LVEF, 6min 步行实验等较对照组显著改善 (P<0.05), 疗效更好。这可能与法舒地尔抑制了 Rho 激酶介导的各种缩血管物质导致的冠状动脉收缩, 增加冠状动脉血供, 改善心肌缺血, 进而改善冠心病慢性心衰患者心功能。

人体内利钠肽有三种, 即心房利钠肽 (ANP)、脑利钠肽 (BNP) 和 C 型利钠肽 (CNP)。左心功能不全, 血浆利钠肽水平升高, 其中 BNP 上升幅度最大, ANP 次之, CNP 几乎不升高, 因此 CHF 患者检测 BNP 的意义最大, BNP 作为预测收缩功能不全和左心射血分数减低比 ANP 和其他利钠肽更有价值。血 BNP 含量的升高可反映左室舒张末压的升高, 不论是收缩功能不全和舒张功能减低引起的心力衰竭均有此改变, 有助于鉴别心源性呼吸困难和肺源性呼吸困难。BNP 水平随 CHF 加重而升高, 随心力衰竭改善而下降, 所以目前 BNP 已作为心力衰竭的血浆标志物, 常用于心力衰竭的诊断、严重程度的判断、治疗、预后评估。研究表明 BNP 是反映心力衰竭严重程度及预后的良好标志物^[12]。欧洲心脏病协会的心力衰竭指南, 已将 BNP 水平作为心力衰竭筛选和诊断的客观指标之一^[13]。本研究显示法舒地尔组在治疗后 BNP 较对照组显著改善 (P<0.05), 显示法舒地尔对慢性心衰病情的改善更明显。

本研究显示, 两组在均给予 ACEI、利尿剂、洋地黄制剂、血管扩张剂和受体阻滞剂等常规治疗基础上, 法舒地尔组治疗冠心病心衰优于对照组。显示法舒地尔能显著降低血浆 BNP 浓度, 改善心功能, 对活动耐力有明显提高, 可作为冠心病慢性心力衰竭的有效治疗药物应用于临床。

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