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麝香保心丸联合丹参多酚酸盐对冠心病心绞痛患者心功能及血清 CRP 与 Hcy 水平的影响 *

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摘要 目的：探讨麝香保心丸联合丹参多酚酸盐治疗冠心病心绞痛的临床疗效。**方法**：选择 2014 年 5 月 -2016 年 5 月我院收治的冠心病心绞痛患者 94 例，根据治疗方法不同分为研究组和对照组，每组 47 例。对照组患者给予丹参多酚酸盐注射液治疗，研究组患者在对照组基础上给予麝香保心丸口服治疗。观察并比较两组患者治疗前后心功能指标及血清同型半胱氨酸（Hcy）及 C 反应蛋白（CRP）水平。**结果**：与治疗前比较，两组患者治疗后 Pro-BNP，LVEDD 及 E/A 均降低，而 LVEF 均升高，差异具有统计学意义（P<0.05）；与对照组比较，研究组治疗后 Pro-BNP，LVEDD 及 E/A 较低，而 LVEF 较高，差异具有统计学意义（P<0.05）。与治疗前比较，两组患者治疗后血清 Hcy 及 CRP 水平均升高，差异具有统计学意义（P<0.05）；与对照组比较，研究组患者治疗后血清 Hcy 及 CRP 水平较高，差异具有统计学意义（P<0.05）。研究组患者临床总有效率显著高于对照组，差异具有统计学意义（P<0.05）。**结论**：麝香保心丸联合丹参多酚酸盐治疗冠心病心绞痛具有显著的临床疗效，可以改善患者心功能，促进冠状动脉血流畅通，值得临床推广应用。

关键词：冠心病；心绞痛；麝香保心丸；心功能；同型半胱氨酸；C 反应蛋白

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Effect of Shexiangbaoxin Capsules and Salvia Miltiorrhiza on Heart Function and Serum Levels of CRP and Hcy in Patients with Coronary Heart Disease and Angina Pectoris*

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ABSTRACT Objective: To investigate the clinical effect of shexiangbaoxin capsules combined with salvia miltiorrhiza polyphenols on the treatment of coronary heart disease and angina pectoris. **Methods:** 94 cases with angina pectoris and coronary heart disease who were admitted in our hospital from May 2014 to May 2016 were selected and according to the different treatment methods, the patients were divided into the study group and the control group with 47 cases in each group. The patients in the control group were treated with salvia miltiorrhiza, and the patients in the study group were treated with shexiangbaoxin capsules on the basis of the control group. Then the cardiac function indexes and serum levels of homocysteine (Hcy) and C reactive protein (CRP) in the two groups were observed and compared before and after the treatment. **Results:** Compared with before treatment, the Pro-BNP, LVEDD and E/A in the two groups decreased after the treatment, while the LVEF increased, and the differences were statistically significant (P<0.05); Compared with the control group, the Pro-BNP, LVEDD and E/A in the study group were lower after the treatment, while the LVEF was higher, and the differences were statistically significant (P<0.05). Compared with before treatment, the serum levels of Hcy and CRP in the two groups increased after the treatment, and the differences were statistically significant (P<0.05); Compared with the control group, the serum levels of Hcy and CRP in the study group were higher after the treatment, and the differences were statistically significant (P<0.05). The clinical total effective rate of the study group was significantly higher than that of the control group, and the difference was statistically significant (P<0.05). **Conclusion:** Shexiangbaoxin capsules combined with salvia miltiorrhiza polyphenols in the treatment of coronary heart disease angina pectoris has significant clinical efficacy, which can improve the heart function and promote coronary flow, and it is worthy of clinical application.

Key words: Coronary heart disease; Angina pectoris; Shexiangbaoxin capsules; Hcy; CRP

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前言

冠心病是机体的血脂代谢异常时导致的心肌功能障碍疾病，因心脏冠脉供血减少而不能满足代谢需求，引起心肌暂时性或持续性缺血缺氧而导致的症状[1]。冠心病心绞痛是由心肌缺血引起的，以胸骨后部压榨性疼痛或憋闷并向左肩部及背部放射为主，易引发急性心肌梗死或猝死，严重威胁患者生命[2]。中医学认为，冠心病心绞痛的主要发病机制为心脉瘀阻、寒凝血瘀，导致心肌缺血、缺氧，引起心绞痛[3]。因此，临床治疗应以改善心肌循环、扩张冠脉血流为主。目前临床常规治疗以硝酸甘油为主，但临床疗效欠佳。近年来研究表明，丹参多酚酸盐具有活血化瘀作用，对心肌缺血具有较好的改善作用[4]；麝香保心丸具有芳香温通、通心益气的作用，可以扩张冠状动脉，改善心肌缺血症状[5]。相关研究证实，动脉粥样硬化是一种慢性炎症性疾病，其形成与机体的炎症、损伤以及渗出等相关，CRP 和 Hcy 是已经发现的炎症反应标志物[6]。因此，本研究通过观察冠心病心绞痛患者血清 CRP 和 Hcy 水平的变化情况，探讨麝香保心丸联合丹参多酚酸盐治疗冠心病心绞痛的临床疗效。

1 资料与方法

1.1 临床资料

选择 2014 年 5 月 -2016 年 5 月我院收治的冠心病心绞痛患者 94 例，根据治疗方法不同分为研究组和对照组，每组 47 例。研究组男性 27 例，女性 18 例，平均年龄（65.67± 1.39）岁；对照组男性 25 例，女性 20 例，平均年龄（64.19± 1.22）岁。两组患者一般资料相比无统计学意义，具有可比性。纳入标准：所有患者均符合美国心脏病学会(ACC)以及美国心脏病协会(AHA)制定的关于冠心病的诊断标准[7]，并经动态心电图、心脏彩超以及冠状动脉造影检查确诊。患者均自愿参与研究，并签署知情同意书。患者无其他心脏器质性疾病以及严重的心律失常；在实验前未行心脏支架或搭桥手术，排除急性心肌梗死或心力衰竭、严重肝肾功能异常者；排除近 1 个月应用类似药物者以及对药物过敏者。

1.2 治疗方法

对照组患者给予丹参多酚酸盐（上海绿谷制药有限公司，国药准字 Z20050249，规格：100 mg/ 支）治疗，置于 5% 葡萄糖溶液 250 mL 中静滴，每次 0.2 g，每天 1 次；研究组患者在对照组基础上给予麝香保心丸（上海和黄药业有限公司，国药准字 Z31020068，规格：22.5 mg）治疗，每次 2 粒，每天 3 次。两组均治疗 14 天。

1.3 观察指标及检测方法

1.3.1 心功能指标检测 两组患者治疗前及治疗后行心脏超声检查左室收缩末期容积指数(LVESVI)、左室舒张末期容积指数(LVEDVI)、左心室舒张末期的内径（LVEDD）并计算 LVEF（测量 3 次取平均值）；同时在患者呼气末，采用多普勒分别在主动脉瓣口和二尖瓣及最大血流处进行取样（血流与取样线夹角应 <200），测得二尖瓣口舒张起的 E 峰和 A 峰，并计算出 E/A。

1.3.2 血清同型半胱氨酸（Hcy）水平检测 所有患者于清晨空腹采集外周静脉血 2 mL，采用循环酶法，应用日立 I7600 - 020 生化分析仪，严格按照说明书的操作步骤，检测同型半胱氨酸（Hcy）水平。

1.3.3 血清 C 反应蛋白（CRP）水平测定 所有患者晨起常规空腹取静脉血 4 mL，于室温条件下凝固 10 min，离心取上清，-20 ℃条件下保存待检，仪器选择美国 BECKMAN COULTER 公司全自动生化分析仪，采用免疫散射比浊法测定血清 CRP 含量。

1.4 疗效评价

临床疗效参照卫生部临床药物实验标准，显效：临床症状明显改善，相关指标恢复正常；有效：临床症状改善，临床指标改善良好，但并未恢复到正常水平；无效：临床症状无变化或加重。总有效率 = 显效率 + 有效率。

1.5 统计学分析

数据用 SPSS18.0 软件进行处理，计量资料用（$\bar{x}\pm s$）表示，采用 t 检验，计数资料用百分比表示，采用 X^2 检验，以 P<0.05 为差异有统计学意义。

2 结果

2.1 两组患者治疗前后心功能指标比较

与治疗前比较，两组患者治疗后 Pro-BNP，LVEDD 及 E/A 均降低，而 LVEF 均升高，差异具有统计学意义（P<0.05）；与对照组比较，研究组治疗后 Pro-BNP，LVEDD 及 E/A 较低，而 LVEF 较高，差异具有统计学意义（P<0.05）。见表 1。

表 1 两组患者治疗前后心功能比较（$\bar{x}\pm s$）

Table 1 Comparison of cardiac function between the two groups before and after the treatment（$\bar{x}\pm s$）

Indexes	Time	Study group (n=47)	Control group (n=47)
Pro-BNP (pg/L)	Before treatment	659.21± 40.57	657.09± 36.71
	After treatment	573.30± 82.45*#	590.19± 69.51*
LVEF (%)	Before treatment	47.31± 5.19	47.96± 5.85
	After treatment	52.01± 5.21*#	50.53± 5.49*
LVEDD (mm)	Before treatment	59.04± 5.75	58.31± 6.65
	After treatment	52.94± 6.67*#	55.01± 6.99*
E/A	Before treatment	5.67± 3.74	6.39± 4.75
	After treatment	4.19± 2.08*#	5.21± 1.78*

Note: compared with before treatment,*P<0.05; compared with control group after treatment, #P<0.05.

2.2 两组患者治疗前后血清 Hcy 及 CRP 水平比较

与治疗前比较，两组患者治疗后血清 Hcy 及 CRP 水平均升高，差异具有统计学意义(P<0.05)；与对照组比较，研究组患者治疗后血清 Hcy 及 CRP 水平较高，差异具有统计学意义(P<0.05)。见表 2。

表 2 两组患者治疗前后血清 Hcy 及 CRP 水平比较(μmol/L，$\bar{x}\pm s$)

Table 2 Comparison of the serum levels of Hcy and CRP between the two groups before and after the treatment ($\bar{x}\pm s$)

Groups	n	Time	Hcy (μmol/L)	CRP (mg/L)
Study group	47	Before treatment	4.17± 0.90	7.06± 1.95
		After treatment	16.03± 3.31*#	21.05± 3.17*#
Control group	47	Before treatment	4.39± 1.36	7.13± 1.86
		After treatment	8.42± 2.09*#	2.08± 0.99*#

Note: compared with before treatment,*P<0.05; compared with control group after treatment, #P<0.05.

2.3 两组患者的临床疗效比较

研究组患者临床总有效率显著高于对照组，差异具有统计学意义(P<0.05)。见表 3。

表 3 两组临床疗效比较[n(%)]

Table 3 Comparison of the clinical efficacy between the two groups [n (%)]

Groups	n	Excellent	Effective	Invalid	Total efficacy rate
Study group	47	23(48.94%)	17(36.17%)	7(14.89%)	85.11%
Control group	47	17(36.17%)	14(29.79%)	16(34.04%)	65.96%

Note: compared with before treatment,*P<0.05.

3 讨论

麝香保心丸是由麝香、牛黄、肉桂、苏合香、冰片、蟾酥等成分组成，具有强心益气的作用，对血脂具有较好的调节作用，有利于抑制血小板聚集反应[8]。麝香保心丸还具有血管壁保护作用，可以扩张冠状动脉，改善冠状动脉血液流动，降低心肌耗氧量[9]。本研究结果显示，与治疗前比较，两组患者治疗后 Pro-BNP，LVEDD 及 E/A 均降低，而 LVEF 均升高，差异具有统计学意义(P<0.05)；与对照组比较，研究组治疗后 Pro-BNP，LVEDD 及 E/A 较低，而 LVEF 较高，差异具有统计学意义(P<0.05)。此外，研究组患者临床总有效率显著高于对照组(P＜0.05)。结果说明，丹参多酚酸盐联合麝香保心丸治疗冠心病心绞痛具有较好的临床疗效，能够活血化瘀、改善循环，改善心肌缺血、缺氧状态。

同型半胱氨酸(Homocysteine, Hcy)是一种含硫非必需氨基酸，是蛋氨酸代谢的中间产物[10]。相关研究表明，血浆 Hcy 水平升高即高 Hcy 血症已经成为冠心病发病的独立危险因素[11]。还有研究显示，同型半胱氨酸主要能够直接或间接损伤血管内皮细胞的附着性，使脂质发生过氧化，形成低密度脂蛋白，刺激血管平滑肌细胞，促进平滑肌细胞增殖以及钙化，激活炎性细胞，增加炎症因子释放[12]，并对凝血系统产生影响，激活凝血因子，促进血小板聚集，使机体处于血栓前状态，进一步发展导致血栓形成，促进动脉粥样硬化的发展及对血管的损害[13]。既往研究表明，冠心病患者血清中 Hcy 水平高于正常人，同型半胱氨酸的水平每升高 5 μmol/L，患冠心病的风险增加 33%，外周血管疾病的风险增加 60%[14]。

C 反应蛋白(CRP)是较为敏感的炎症反应标志物[15]。相关研究证实，CRP 能够与单核细胞结合，导致凝血发生，加速动脉粥样硬化的形成[16]。也有研究表明，CRP 能够降低内皮细胞内 NO 合成酶的活性，抑制其生物学效应，造成血管内皮细胞反应性下降[17]，而且在冠状动脉粥样硬化的形成和发展中能够调节单核细胞的聚集，刺激巨噬细胞产生血栓前组织因子[18]。还有研究表明，hs-CRP 水平能够反应冠状动脉硬化性疾病的危险程度[19]。

本研究结果显示，与治疗前比较，两组患者治疗后血清 Hcy 及 CRP 水平均升高(P<0.05)；与对照组比较，研究组患者治疗后血清 Hcy 及 CRP 水平较高(P<0.05)。结果说明，麝香保心丸联合丹参多酚酸盐可以改善冠状动脉供血，且对冠状动脉血管壁具有保护作用，同时增加冠状动脉血流，提供心肌细胞氧气含量，从而保护心肌细胞发生炎症反应[20]。

综上所述，麝香保心丸联合丹参多酚酸盐治疗冠心病心绞痛具有显著的临床疗效，能够改善患者心功能，促进冠状动脉血流畅通，值得临床推广应用。

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(上接第 1821 页)

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