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川芎嗪注射液对冠心病心绞痛患者血脂相关指标的影响及其临床疗效分析

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摘要 目的:探讨川芎嗪注射液治疗冠心病心绞痛的临床疗效。**方法:**选择 2014 年 5 月-2016 年 5 月在我院接受治疗的冠心病心绞痛患者 79 例,根据治疗方法不同分为对照组(37 例)和研究组(42 例)。对照组患者给予常规治疗,研究组患者在对照组基础上给予川芎嗪注射液治疗。观察并比较两组患者的临床疗效。**结果:**治疗前,两组患者总胆固醇(TC)、甘油三酯(TG)、低密度脂蛋白胆固醇(LDL-C)及高密度脂蛋白胆固醇(HDL-C)水平比较,差异无统计学意义($P>0.05$);治疗后,两组患者总胆固醇(TC)、甘油三酯(TG)及低密度脂蛋白胆固醇(LDL-C)水平均显著降低,差异具有统计学意义($P<0.05$);治疗后,研究组患者总胆固醇(TC)、甘油三酯(TG)及低密度脂蛋白胆固醇(LDL-C)水平均低于对照组,差异具有统计学意义($P<0.05$);治疗后,两组患者高密度脂蛋白胆固醇(HDL-C)水平比较,差异无统计学意义($P>0.05$)。研究组患者治疗总有效率(92.86%)高于对照组(81.08%),差异具有统计学意义($P<0.05$)。**结论:**川芎嗪注射液治疗冠心病心绞痛的临床疗效显著,能够降低血脂相关指标水平,改善临床症状,值得临床推广应用。

关键词:冠心病;心绞痛;川芎嗪注射液;临床疗效

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Effects of Ligustrazine Injection on the Serum Levels of Patients with Coronary Heart Disease and Angina Pectoris

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ABSTRACT Objective: To investigate the influence of ligustrazine injection on the treatment of coronary heart disease (CHD) and angina pectoris. **Methods:** 79 cases with angina pectoris who were treated in our hospital from May 2014 to May 2016 were selected and according to the different treatment methods, the patients were divided into the control group (37 cases) and the study group (42 cases). The patients in the control group were treated with conventional methods, while the patients in the study group were treated with ligustrazine injection on the basis of the control group. Then the clinical efficacy of two groups were observed and compared. **Results:** Before treatment, there was no statistically significant difference about the levels of the total cholesterol (TC), triglyceride (TG), low density lipoprotein cholesterol (LDL-C) and high density lipoprotein cholesterol (HDL-C) between the two groups ($P>0.05$); After treatment, the levels of total cholesterol (TC), triglyceride (TG) and low density lipoprotein cholesterol (LDL-C) in the two groups were significantly lower than before, and the differences were statistically significant ($P<0.05$); After treatment, the levels of total cholesterol (TC), triglyceride (TG) and low density lipoprotein cholesterol (LDL-C) in the study group were lower than those of the control group, and the differences were statistically significant ($P<0.05$); After treatment, there was no statistically significant difference about the levels of the high density lipoprotein cholesterol (HDL-C) in the two groups ($P>0.05$); The total effective rate in the study group was 92.86%, which was higher than 81.08% in the control group, and the difference was statistically significant ($P<0.05$). **Conclusion:** Ligustrazine has obvious curative effect in treatment CHD and angina pectoris, which can improve the angina pectoris symptoms and be worthy of clinical application.

Key words: Coronary heart disease; Angina pectoris; Ligustrazine injection; Clinical effects

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前言

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冠心病(coronary atherosclerotic heart disease, CHD)是临床常见的心血管疾病,主要表现为严重的异常脂质代谢,引起患者原本光滑的动脉内膜出现脂质沉积,在血管内膜上形成黄白色的脂质斑块,导致血管变窄、血流不畅,出现心肌缺血缺氧,最终导致心绞痛的发生。相关研究显示,脂质代谢紊乱、血液流

变学异常等与冠心病心绞痛的发生和发展具有较强的相关性^[1]。川芎嗪注射液作为临床常用的一种活血化瘀类中药注射剂,其有效成分川芎嗪具有较强的降低血黏度、改善血流动力学、扩张冠状动脉及抗凝等作用^[2],可以有效缓解心肌缺血状态,显著降低冠心病心绞痛的发病率。因此,本研究通过分析川芎嗪注射液对冠心病心绞痛患者血脂相关指标的影响,探讨其临床疗效,现将结果报道如下。

1 资料与方法

1.1 临床资料

选择 2014 年 5 月 -2016 年 5 月在我院治疗冠心病心绞痛 79 例,所有患者均符合世界卫生组织(WHO)与国际心脏病学会和协会对冠心病的诊断标准。根据治疗方法不同分为对照组(37 例)和研究组(42 例)。两组临床资料差异无统计学意义($P>0.05$),具有可比性。其中,研究组包括男 18 例,女 24 例;年龄 45~69 岁,平均年龄(52.03 ± 4.63)岁;病程 3~10 年,平均病程(4.34 ± 2.12)年;美国纽约心脏病学会(NYHA)分级:I 级 9 例、II 级 25 例、III 级 8 例。对照组包括男 20 例,女 17 例;年龄 43~70 岁,平均年龄(43.81 ± 3.18)岁;病程 3~10 年,平均病程(4.73 ± 2.39)年;NYHA 分级:I 级 7 例、II 级 16 例、III 级 14 例。

1.2 方法

对照组患者给予阿司匹林(拜耳医药保健有限公司,国药准字 J20080078)100 mg/次/d 治疗。研究组在对照组治疗的基础上给予川芎嗪注射液(天津金耀氨基酸有限公司,国药准字 H11021508)40 mg/d 进行治疗。两组均治疗两个疗程,每疗程 10 d。

1.3 血脂相关指标检测

分别于治疗前后采集患者空腹静脉血 5 mL,4℃ 下 3000 r/min 离心 10 min,分离血浆,置于 -20℃ 冰箱保存,备用。利用 Mindray BS-300/BS-330E 全自动生化分析仪检测总胆固醇(TC)、高密度脂蛋白胆固醇(HDL-C)、甘油三酯(TG)和低密度脂蛋白胆固醇(LDL-C)含量。

1.4 疗效判定

显效:I、II 级心绞痛基本消失,同时心绞痛症状分级下降 2 级,心电图不再异常;有效:I 级心绞痛基本消失,同时心绞痛症状分级下降 1 级,心电图显示 ST 段降低,与治疗前比较回升 >0.05 mV,但仍然没达到正常水平;无效:患者心绞痛症状没有得到显著的改善,治疗前后心电图表现一致。总有效率=(显效患者+有效患者)/患者总数 $\times$ 100%。

1.5 统计学方法

采用 SPSS 19.0 统计学软件进行数据处理,计量资料用($\bar{x} \pm s$)表示,应用 t 检验,计数资料以%表示,采用卡方检验,以 $P<0.05$ 为差异具有统计学意义。

2 结果

2.1 两组患者治疗前后血脂相关指标比较

治疗前,两组患者 TC、TG、LDL-C 及 HDL-C 水平比较,差异无统计学意义($P>0.05$);治疗后,两组患者 TC、TG 及 LDL-C 水平均显著降低,且研究组低于对照组,差异具有统计学意义($P<0.05$);治疗后,两组患者 HDL-C 水平比较,差异无统计学意义($P>0.05$)。见表 1。

表 1 两组患者治疗前后血清相关指标比较($\bar{x} \pm s$,mmol/L)

Table 1 Comparison of serum indexes of patients in the two groups before and after the treatment

Groups	n	TC		TG		LDL-C		HDL-C	
		Before treatment	After treatment	Before treatment	After treatment	Before treatment	After treatment	Before treatment	After treatment
Control group	37	6.31 $\pm$ 1.13	5.62 $\pm$ 0.83*	1.66 $\pm$ 0.09	1.74 $\pm$ 0.01*	3.65 $\pm$ 0.11	3.26 $\pm$ 0.25*	1.38 $\pm$ 0.06	1.45 $\pm$ 0.07
Study group	42	6.33 $\pm$ 1.15	5.52 $\pm$ 0.92**	1.85 $\pm$ 0.22	1.53 $\pm$ 0.04**	3.86 $\pm$ 0.13	2.85 $\pm$ 0.31**	1.40 $\pm$ 0.05	1.32 $\pm$ 0.06
t		0.614	5.357	1.214	0.891	0.715	7.113	0.722	0.802
P		0.701	0.037	0.312	0.514	0.605	0.008	0.597	0.534

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

2.2 两组患者的临床疗效比较

研究组患者治疗总有效率(92.86%)高于对照组(81.08%),

差异具有统计学意义($P<0.05$)。见表 2。

表 2 两组患者临床疗效对比[n(%)]

Table 2 Comparison of the clinical efficacy between two groups

Groups	n	Excellent	Effective	Invalid	Total effective rate(%)
Control group	37	17(45.95)	13(35.14)	7(18.92)	30(81.08%)
Study group	42	25(59.52)	14(33.33)	3(7.14)	39(92.86%)*

Note: compared with control group, * $P<0.05$.

3 讨论

心绞痛是冠心病的常见临床症状,由于心肌血供不足,导

致心肌暂时性缺血,表现为胸痛、胸闷、心悸等^[3]。同时,被脂质斑块占据的管腔变小的冠状动脉不能相应地供给充足的血液供应,从而导致心肌短暂性缺血,引起心前区疼痛、胸闷等心绞

痛症状^[5]。川芎嗪为伞形科多年生草本植物,目前临床主要用于治疗高血压、冠心病、缺血性脑血管疾病等,疗效明显^[6]。相关研究表明,川芎嗪在一定程度上具有促使已经聚集的血小板发生解聚的作用^[7]。还有研究发现,川芎嗪具有对抗肾上腺素和氯化钾引起的动脉收缩效应,从而在可能发生心绞痛时可通过对抗肾上腺素和氯化钾来减弱冠脉收缩,使冠状动脉处于舒张状态,避免冠状动脉血流减少,同时降低动脉的压力和冠状动脉的阻力,进而保证心肌的有效供血,减少心绞痛发生率^[8,9]。本研究中,研究组患者治疗总有效率高于对照组($P<0.05$)。结果说明,川芎嗪注射液治疗冠心病心绞痛的疗效显著。我们分析认为川芎嗪通过抑制花生四烯酸 2 的代谢,从而增加血小板或者血浆内腺苷-3',5'-环化一磷酸(cAMP)的浓度,而血小板内cAMP生成过多就会阻止脂联素(ADP)的释放,从而阻碍ADP介导的血小板活化作用来抑制血小板聚集^[10];同时川芎嗪注射液还可以通过置换血小板膜上的 Ca^{2+} 使得血小板膜上正电荷减少,负电荷增加,相同电荷增加之后发生同种电荷排斥效应,从而有效的阻止了血小板的聚集^[11]。

动脉粥样硬化是由于长期高血脂症对动脉内膜形成功能性的损伤,导致血管内皮细胞表面生物学特性发生改变,黏附因子增加,单核细胞黏附聚集并渗透进入血管内皮细胞间质,形成巨噬细胞,巨噬细胞吞噬低密度脂蛋白从而演变为泡沫细胞,泡沫细胞堆积形成动脉粥样硬化的早期病变,即脂质条纹^[12,13]。由于血浆当中低密度脂蛋白等的持续升高,脂质堆积导致形成脂质核心,而此时巨噬细胞合成细胞因子刺激平滑肌进入到脂质条纹中,从而促使脂质条纹最终演变为粥样斑块^[14]。粥样斑块的形会导致血液循环不畅,流动受阻,出现更多的湍流,进一步损伤血管内壁,从而出现恶性循环^[15]。同时,血脂增加以及血小板聚集导致血液黏度增加,从而出现血液流变学改变等^[16]。相关研究表明,川芎嗪能够通过增加内皮细胞前列环素,对血管内皮细胞损伤起到治疗作用和保护作用,同时能够抑制血栓素A2合成,从而减少血小板聚集,降低血浆粘度,并直接激活纤溶酶原促使聚集血小板解聚,从而对CHD并心绞痛患者发挥治疗作用^[17,18]。本研究结果显示,治疗后两组患者TC、TG及LDL-C水平均显著降低,并且研究组低于对照组($P<0.05$);这与相关研究结果一致^[19,20],说明川芎嗪可针对性的降低血液流变学异常,促进血液内TG、TC、LDL代谢转运。

综上所述,川芎嗪注射液治疗冠心病心绞痛的临床疗效显著,能够降低血脂相关指标水平,改善临床症状,值得临床推广应用。

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