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复方丹参联合厄贝沙坦治疗老年高血压合并冠心病患者的临床疗效及对血清Apelin、Hcy水平的影响

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【摘要】目的 探讨复方丹参联合厄贝沙坦治疗老年高血压合并冠心病患者的临床疗效及对血清Apelin、Hcy水平的影响。**方法** 选取2023年1月至12月在南阳医学高等专科学校附属中医院就诊的老年高血压合并冠心病患者92例,随机数字表法分为对照组(n=46)和观察组(n=46),对照组在常规基础治疗上接受厄贝沙坦片,治疗组在对照组的基础上又增加复方丹参滴丸,治疗前、治疗1个月后,采用全自动血压测定仪检测血压指标收缩压、舒张压,采用全自动生化分析仪检测血脂指标低密度脂蛋白胆固醇(LLDL-C)、总胆固醇(TC)、高密度脂蛋白胆固醇(HDL-C),酶联免疫吸附法检测同型半胱氨酸(Hcy)、白介素-6(IL-6)、超敏C反应蛋白(hs-CRP)、爱帕琳(Apelin),并统计治疗期间出现的不良事件发生情况。**结果** 治疗组因个人主动退出脱落1例;对照组因个人主动退出、失访共脱落2例。两组基线资料比较差异不显著($P<0.05$);治疗前两组血压指标比较差异不显著($P>0.05$),治疗后治疗组收缩压、舒张压水平低于对照组($P<0.05$);治疗前两组血脂指标比较差异不显著($P>0.05$),治疗后治疗组LDL-C、TC水平低于对照组($P<0.05$),HDL-C水平高于对照组($P<0.05$);治疗前两组实验室指标比较差异不显著($P>0.05$),治疗后治疗组Hcy、IL-6、hs-CRP水平低于对照组($P<0.05$),Apelin水平高于对照组($P<0.05$);治疗组与对照组不良事件发生情况比较差异不显著($\chi^2=1.012, P=0.314$)。**结论** 复方丹参联合厄贝沙坦治疗老年高血压合并冠心病患者能有效降低血压及改善血脂水平,并显著调节血清Apelin和Hcy水平,具有良好的临床疗效和安全性。

【关键词】 高血压;冠心病;复方丹参;厄贝沙坦;老年**【中图分类号】** R544.1**【文献标识码】** A**DOI:**10.3969/j.issn.1009-3257.2026.2.024

To Investigate the Clinical Efficacy of Compound Salvia Miltiorrhiza Combined with Irbesartan in the Treatment of Elderly Patients with Hypertension and Coronary Heart Disease and Its Effect on Serum Apelin and Hcy Levels

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Abstract: Objective To investigate the clinical effect of compound salvia miltiorrhiza combined with irbesartan on elderly patients with hypertension complicated with coronary heart disease and its effect on serum Apelin and Hcy levels. **Methods** A total of 92 elderly patients with hypertension and coronary heart disease in the Affiliated Hospital of Traditional Chinese Medicine of Nanyang Medical College from January to December 2023 were selected and divided into control group (n=46) and observation group (n=46) by random number table method. The control group was treated with irbesartan tablets on the basis of routine treatment, and the treatment group was treated with compound Danshen dropping pills on the basis of the control group. Before treatment and after 1 month of treatment, systolic blood pressure and diastolic blood pressure were detected by automatic blood pressure meter, LDL-C, TC, HDL-C were detected by automatic biochemical analyzer, Hcy, IL-6, hs-CRP, Apelin were detected by enzyme-linked immunosorbent assay, and the occurrence of adverse events during treatment was counted. **Results** One patient dropped out of the treatment group due to personal initiative withdrawal. Two patients in the control group dropped out because of personal withdrawal and loss to follow-up. There was no significant difference in baseline data between the two groups ($P<0.05$). There was no significant difference in blood pressure between the two groups before treatment ($P>0.05$). After treatment, the levels of systolic blood pressure and diastolic blood pressure in the treatment group were lower than those in the control group ($P<0.05$). There was no significant difference in blood lipid indexes between the two groups before treatment ($P>0.05$). After treatment, the levels of LDL-C and TC in the treatment group were lower than those in the control group ($P<0.05$), and the level of HDL-C was higher than that in the control group ($P<0.05$). There was no significant difference in laboratory indexes between the two groups before treatment ($P>0.05$). After treatment, the levels of Hcy, IL-6 and hs-CRP in the treatment group were lower than those in the control group ($P<0.05$), and the level of Apelin was higher than that in the control group ($P<0.05$). There was no significant difference in the incidence of adverse events between the treatment group and the control group ($\chi^2=1.012, P=0.314$). **Conclusion** Compound salvia miltiorrhiza combined with irbesartan can effectively reduce blood pressure, improve blood lipid levels, and significantly regulate serum Apelin and Hcy levels in elderly patients with hypertension and coronary heart disease, with good clinical efficacy and safety.

Keywords: Hypertension; Coronary Heart Disease; Compound Danshen; Irbesartan; Elderly

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高血压和冠心病是全球范围内最主要的心血管疾病,严重威胁着人们的健康和生命。根据世界卫生组织的统计^[1],全球约有11亿人患有高血压,且其发病率逐年上升,尤其是在老年人群中。中国的高血压患病率高达27.9%,在60岁以上的老年人中更是超过50%^[2-3]。高血压不仅是冠心病的重要危险因素,还与心肌梗死、脑卒中等严重并发症密切相关^[4-5]。冠心病则是导致心血管疾病死亡的主要原因,2019年全球因冠心病导致的死亡人数超过900万,而在中国,冠心病的发病率为6.8%,且随着人口老龄化的加剧,老年人群中冠心病的发病率显著上升^[6]。在老年患者中,高血压合并冠心病的情况尤为常见,这不仅增加心血管事件的风险,还显著降低生活质量。传统的治疗手段主要包括抗高血压药物和他汀类药物等,然而,治疗效果常常受限于个体差异及肝肾功能的下降。复方丹参是一种中药复方,近年来在心血管疾病的治疗中展现出了良好的疗效,尤其是在改善微循环、降低血脂及抗炎等方面有显著作用^[7]。复方丹参滴丸是在复方丹参片基础上创新研制的中药制剂,成分质量更稳定、生物利用度更高^[8]。厄贝沙坦作为一种新型抗高血压药物,具有良好的降压效果及心保护作用^[9]。本研究旨在通过临床试验评估复方丹参联合厄贝沙坦的疗效,为临床治疗提供新的依据。

1 资料与方法

1.1 一般资料 选取2023年1月至12月在南阳医学高等专科学校附属中医院就诊的老年高血压合并冠心病患者92例,随机数字表法分为对照组(n=46)和观察组(n=46)。

纳入标准:冠心病符合《高龄老年冠心病诊治中国专家共识》诊断标准^[10];高血压符合《国家基层高血压防治管理指南2020版》^[11];年龄≥60岁;临床资料完整;意识正常。排除标准:有严重的肝肾功能不全,肝功能指标如ALT、AST、总胆红素等超过正常范围2倍以上,或肾功能指标如肌酐、尿素氮等显著异常;对本研究药物如复方丹参或厄贝沙坦有明显过敏反应;合并严重的心脏病如心脏瓣膜病、心源性休克、严重的心律失常等;在研究期间使用其他可能影响血压和心血管功能的药物如其他降压药、抗凝药等;有恶性肿瘤或其他严重的全身性疾病;伴有严重的神经系统疾病如中风、癫痫等。

1.2 方法 两组患者均常规予以阿司匹林肠溶片,口服25mg/次,1次/d,苯磺酸氨氯地平片,口服,5mg/次,1次/d。对

照组在常规基础治疗上接受厄贝沙坦片,口服,初始150mg/次,qd,若7d内血压控制不好,可增加剂量至300mg/次,qd。治疗组在对照组的基础上又增加复方丹参滴丸,餐后口服,270mg/次,3次/d。

1.3 观察指标 (1)实验室指标:治疗前、治疗1个月后,采集空腹静脉血5mL,离心,3000r/min,10min,r为10cm,采用全自动血压测定仪检测血压指标收缩压、舒张压,采用全自动生化分析仪检测血脂指标低密度脂蛋白胆固醇(low-density lipoprotein cholesterol, LDL-C)、总胆固醇(total cholesterol, TC)、高密度脂蛋白胆固醇(high-density lipoprotein cholesterol, HDL-C),酶联免疫吸附法检测同型半胱氨酸(homocysteine, Hcy)、白介素-6(interleukin-6, IL-6)、超敏C反应蛋白(high-sensitivity c-reactive protein, hs-CRP)、爱帕琳肽(apelin);(2)不良事件:统计治疗期间出现的不良事件发生情况。

1.4 统计学方法 应用SPSS 27.0软件行统计学分析,计量资料用($\bar{x} \pm s$)表示,比较用t检验,计数资料用[n(%)]表示,比较用 χ^2 检验,以P<0.05为差异有统计学意义。

2 结果

2.1 两组基线资料比较 治疗组因个人主动退出脱落1例;对照组因个人主动退出、失访共脱落2例。两组基线资料比较差异不显著(P<0.05),见表1。

2.2 两组血压指标比较 治疗前两组血压指标比较差异不显著(P>0.05),治疗后治疗组收缩压、舒张压水平低于对照组(P<0.05),见表2。

2.3 两组血脂指标比较 治疗前两组血脂指标比较差异不显著(P>0.05),治疗后治疗组LDL-C、TC水平低于对照组(P<0.05),HDL-C水平高于对照组(P<0.05),见表2。

2.4 两组实验室指标比较 治疗前两组实验室指标比较差异不显著(P>0.05),治疗后治疗组Hcy、IL-6、hs-CRP水平低于对照组(P<0.05),Apelin水平高于对照组(P<0.05),见表4。

2.5 两组不良事件发生情况比较 治疗组皮疹、头晕各1例,睡眠障碍2例,睡眠障碍3例,对照组皮疹、腹痛、睡眠障碍各1例,食欲不振2例。治疗组与对照组不良事件发生情况比较差异不显著($\chi^2=1.012, P=0.314$)。

表1 两组基线资料比较

组别	性别(男/女)	年龄(岁)	BMI(kg/m ²)	心率(次/min)	冠心病病程(年)
对照组(n=44)	20/24	72.82±2.05	23.27±2.11	69.01±8.12	5.11±1.21
治疗组(n=45)	27/18	72.51±2.16	23.12±1.51	68.87±7.06	5.21±1.08
χ^2	1.889	0.694	0.386	0.087	0.318
P	0.169	0.489	0.700	0.931	0.751

表2 两组血压指标比较[mmHg]

组别	收缩压		舒张压	
	治疗前	治疗后	治疗前	治疗后
对照组(n=44)	156.29±3.51	132.41±3.45*	98.18±2.77	86.11±4.26*
治疗组(n=45)	155.82±3.46	128.85±4.66*	97.92±1.91	83.84±3.35*
t	0.507	3.604	0.375	2.093
P	0.614	0.001	0.709	0.039

注:治疗前 VS 治疗后 P<0.05。

表3 两组血脂指标比较[mmol/L]

组别	HDL-C		LDL-C		TC	
	治疗前	治疗后	治疗前	治疗后	治疗前	治疗后
对照组(n=44)	0.97±0.11	1.36±0.52*	5.75±0.73	4.36±0.51*	5.73±0.14	3.57±0.55*
治疗组(n=45)	0.94±0.18	1.91±0.34*	5.67±0.66	2.31±0.34*	5.84±0.26	2.67±0.24*
t	0.889	4.244	0.421	16.096	2.424	6.751
P	0.377	<0.001	0.675	<0.001	0.018	<0.001

注：治疗前 VS 治疗后 P<0.05。

表4 两组实验室指标比较

组别	Apelin(μg/L)		Hcy(mmol/L)		IL-6(pg/mL)		hs-CRP(mg/L)	
	治疗前	治疗后	治疗前	治疗后	治疗前	治疗后	治疗前	治疗后
对照组(n=44)	1.33±0.61	1.65±0.51*	28.13±4.75	18.15±2.54*	12.49±2.17	7.36±1.32*	13.23±3.34	7.17±1.05*
治疗组(n=45)	1.28±0.55	1.97±0.38*	27.21±4.82	16.34±3.15*	12.29±2.09	6.25±1.21*	12.83±2.46	5.51±0.74*
t	0.315	2.481	0.729	2.553	0.350	3.225	0.474	6.293
P	0.753	0.015	0.468	0.013	0.727	0.002	0.637	<0.001

注：治疗前 VS 治疗后 P<0.05。

3 讨论

本研究发现，与对照组比较，治疗组在血压、血脂方面的改善作用均更优。治疗组在血压和血脂改善方面的优越性，主要源于复方丹参滴丸中各成分的协同作用。丹参作为复方丹参滴丸的主要成分，其活性成分丹参素能够通过多种机制发挥药理效应，如能够显著增加内皮细胞内一氧化氮(NO)的合成，促进血管舒张，进而降低外周血管阻力，因为一氧化氮不仅能放松平滑肌，还能抑制内皮细胞的收缩和炎症反应，从而有效维持正常的血压水平^[12-13]。丹参的抗氧化作用能够减少氧化损伤，保护血管内皮细胞，增强其功能，这对于防止动脉硬化和维持血压的长期控制至关重要^[14]。复方丹参滴丸成分三七中的三七皂苷具备抗凝血和促进血液循环的作用，三七皂苷能够抑制血小板聚集，降低血液的粘稠度，改善微循环，从而降低心血管事件的风险^[15-16]。这种机制对于血脂的控制也具有重要意义，因为改善微循环有助于脂质代谢的正常进行，并减少脂肪在血管壁的沉积。三七皂苷还能够通过调节肝脏脂质代谢，促进胆固醇的清除，从而降低血脂水平^[17]。复方丹参滴丸中的冰片成分则具有清凉解热作用，有助于改善血液流动性，进一步增强药物的整体疗效^[18]。冰片通过提高血液流速和降低血液粘稠度，能够辅助丹参和三七的作用，达到更好的血压和血脂控制效果^[19-20]。

Hcy是一种氨基酸，研究表明其水平升高与心血管疾病的发生密切相关，其通过促进内皮细胞功能障碍、诱导氧化应激和炎症反应，加速动脉粥样硬化的形成，从而增加心血管事件的风险^[21-22]。IL-6是一种促炎细胞因子，其在炎症反应中起着核心作用，促进多种细胞的激活且与心血管疾病的进展密切相关^[23]。

hs-CRP是由肝脏产生的炎症标志物，其水平的升高提示体内存在炎症状态，已经被广泛用于评估心血管疾病的风险^[24]。Apelin是一种由脂肪组织和心脏等组织分泌的肽，近年来的研究发现其在心血管生理中起着重要的调节作用，能够促进心脏功能、改善血管内皮的健康，并有助于调节血压^[25-26]。本研究中，治疗组患者Hcy、IL-6和hs-CRP水平低于对照组，而Apelin水平高于对照组。复方丹参中的丹参素和三七皂苷通过其抗氧化和抗炎特性，能够有效降低炎症反应，进而抑制IL-6和hs-CRP的表达，这种抗炎作用有助于减少内皮细胞的损伤，进而降低Hcy的合成和积累。复方丹参滴丸通过改善微循环、降低血液粘稠度，可能还促进Hcy的代谢，从而使其浓度降低^[27]。Apelin水平的升高则与复方丹参滴丸的积极心血管保护作用相关。复方丹参滴丸可能通过改善血管内皮功能和促进血液循环，增强Apelin的分泌^[28]。Apelin作为一种血管活性物质，能够通过多种途径促进血管扩张和改善心脏功能，降低高血压患者的整体心血管风险^[29]。

本研究还发现，治疗组与对照组不良事件发生情况比较差异不显著($\chi^2=1.012, P=0.314$)。说明在常规治疗基础上增加复方丹参滴丸并没有明显增加患者不良事件发生率，具有良好的安全性。

综上所述，复方丹参联合厄贝沙坦治疗老年高血压合并冠心病患者能有效降低血压及改善血脂水平，并显著调节血清Apelin和Hcy水平，具有良好的临床疗效和安全性。

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