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清肝降压胶囊联合厄贝沙坦对原发性高血压患者血清脂联素, VEGF 及 Hcy 水平的影响 *

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摘要 目的:探讨清肝降压胶囊联合厄贝沙坦治疗原发性高血压的临床疗效。**方法:**收集 2014 年 3 月-2016 年 3 月我院收治的 86 例高血压患者,随机分为对照组和研究组,每组 43 例。对照组患者采用硝苯地平缓释片治疗,研究组患者采用清肝降压胶囊联合厄贝沙坦治疗。观察并比较两组患者治疗前后收缩压(SBP)、舒张压(DBP)、血清脂联素(Adiponectin)、同型半胱氨酸(Hcy)及血管内皮生成因子(VEGF)水平的变化情况,以及临床疗效。**结果:**与治疗前相比,两组患者治疗后 SBP 及 DBP 水平均降低,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 SBP 及 DBP 更接近于正常水平,差异具有统计学意义($P<0.05$)。与治疗前相比,两组患者治疗后血清脂联素水平均升高,而 VEGF 及 Hcy 水平均降低,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脂联素水平较高,而 VEGF 及 Hcy 水平较低,差异具有统计学意义($P<0.05$)。研究组患者治疗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:**清肝降压胶囊联合厄贝沙坦治疗原发性高血压的临床疗效显著,能够升高患者血清脂联素水平,同时降低血管内皮生长因子和同型半胱氨酸水平,值得临床推广应用。

关键词:原发性高血压;清肝降压胶囊;同型半胱氨酸;脂联素;血管内皮生长因子

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Effects of Qingganjiangya Capsules and Irbesartan on Serum Levels of Adiponectin, Hcy and VEGF in Patients with Hypertension*

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ABSTRACT Objective: To investigate the clinical efficacy of Qingganjiangya capsules and irbesartan in treatment of essential hypertension. **Methods:** 86 patients with hypertension who were treated in our hospital from March 2014 to March 2016 were selected and randomly divided into the control group and the research group, with 43 cases in each group. The patients in the control group were treated with nifedipine, while patients in the research group were treated with Qingganjiangya capsules combined with irbesartan. Then the systolic blood pressure (SBP), diastolic blood pressure (DBP), the serum levels of adiponectin, homocysteine (Hcy) and vascular endothelial growth factor (VEGF) and the clinical curative effect in the two groups were observed and compared before and after the treatment. **Results:** Compared with the serum levels before treatment, the SBP and DBP in the two groups decreased after the treatment, and the differences were statistically significant ($P<0.05$); Compared with the control group, the SBP and DBP in the research group were more close to the normal levels, and the differences were statistically significant ($P<0.05$); Compared with the serum levels before treatment, the serum levels of adiponectin in the two groups significantly increased after the treatment, while the serum levels of VEGF and Hcy decreased, and the differences were statistically significant ($P<0.05$); Compared with the control group, the serum levels of adiponectin in the research group were higher after the treatment, while the serum levels of VEGF and Hcy were lower, and the differences were statistically significant ($P<0.05$); The total effective rate of the research group was significantly higher than that of the control group, and the difference was statistically significant ($P<0.05$). **Conclusions:** Qingganjiangya capsules combined irbesartan have better clinical efficacy on the treatment of essential hypertension, which can increase the serum level of adiponectin and decrease the levels of VEGF and Hcy, and it is worthy of clinical application.

Key words: Hypertension; Qingganjiangya capsules; VEGF; Hcy; Adiponectin

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前言

原发性高血压(Hypertension)是临床常见的一种慢性终身性疾病,以动脉血压持续增高为主要特征,高血压引起的心肌

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纤维化是诱发心律失常、心衰、心肌缺血以及心源性猝死的主要原因^[1]。高血压病在祖国医学中可归属于眩晕、头痛等的范畴,认为该病为气血失和,阴阳失衡,水不涵木,肝阳上扰心神而发生,总属为本虚标实之证^[2]。目前,临床主要采用药物治疗的方法对原发性高血压患者的血压水平进行控制,但疗效并不理想^[3]。因此,选择一种安全有效的治疗药物对于改善高血压患者的病情至关重要。近年来研究表明,清肝降压胶囊与厄贝沙坦治疗原发性高血压的效果显著^[4]。相关研究表明,血清同型半胱氨酸(Hcy)、脂联素(Adiponectin)及血管内皮生成因子(VEGF)均与原发性高血压的发生及发展有关,可以直接或间接的导致血压上升^[5]。因此,本研究通过观察患者血清同型半胱氨酸(Hcy)、血清脂联素(Adiponectin)及血管内皮生成因子(VEGF)水平的变化情况,探讨清肝降压胶囊与厄贝沙坦治疗原发性高血压的临床疗效。

1 资料与方法

1.1 临床资料

收集2014年3月-2016年3月我院收治的86例高血压患者,随机分为对照组和研究组,每组43例。研究组包括男27例、女16例;年龄45-69岁,平均年龄(57.2±8.5)岁;平均病程(6.1±0.8)年;收缩压(SBP)为(164.3±17.5)mmHg,舒张压(DBP)为(96.3±10.5)mmHg;对照组包括男30例、女13例;年龄43-68岁,平均年龄(57.4±8.7)岁;平均病程(6.3±0.2)年;收缩压(SBP)为(165.1±19.1)mmHg,舒张压(DBP)为(98.2±12.5)mmHg。两组患者各项指标经统计学处理,差异无统计学意义(P>0.05)。纳入标准:①所有患者高血压诊断标准参考1999年世界卫生组织关于高血压的诊断标准^[6],测量患者安静状态下坐位的收缩压(SBP)和舒张压(DBP),其中SBP≥140 mmHg(1 mmHg=0.133 kPa)和(或)DBP≥90 mmHg;②确诊高血压后并未服药,或在接受测量前停药1周以上;③临床资料完整。排除标准:①继发性高血压或具有家族遗传史患者;②合并糖尿病、自身免疫性疾病及其他心脏疾病患者;③肝、肾等脏病发生重大病变患者。

1.2 治疗方法

对照组患者采用硝苯地平缓释片(国药准字H10930145;生产厂家:地奥集团成都药业股份有限公司)口服治疗,10-20 mg/次,每日2次。研究组患者采用清肝降压胶囊(国药准字

Z20093712;生产厂家:北京洪天力药业有限公司)口服,0.15 g/次,每日3次,以及厄贝沙坦(生产厂家:哈药集团制药六厂;国药准字H20010530)口服治疗,0.15 g/次,每日1次。

1.3 观察指标及检测方法

1.3.1 血压水平检测 采用校正后的标准台式水银柱血压计测量患者右上臂血压,分别测定患者收缩压(SBP)及舒张压(DBP)。

1.3.2 血清 VEGF 水平检测 采用双蛋白抗体夹心法检测血清 VEGF 水平,试剂盒购买于北京利德曼生化股份有限公司,应用索灵诊断医疗设备(上海)有限公司提供的LIAISON®全自动化学发光免疫分析系统进行检测。

1.3.3 脂联素水平检测 采用免疫吸附法测定脂联素,试剂盒购买于北京盛齐扬恒生物科技有限公司,应用上海昆士兰生物科技发展有限公司提供的瑞士罗氏cobas c 311全自动生化分析仪进行检测。

1.3.4 血清 Hcy 水平检测 入选者在参与测试的第2天清晨,对两组受检者的血清Hcy水平分别进行测定。

1.4 疗效评价

参照2008年美国心脏协会关于高血压诊断标准及2010年发布的《我国高血压指南诊断标准》:显效:治疗后血压下降明显至正常范围,即血压≤140/90 mmHg,且血压水平稳定,波动较小。有效:患者治疗后血压下降至正常水平或下降20 mmHg以上,接近正常范围,患者血压水平趋近稳定。无效:患者血压变化不明显,用药后血压下降水平不足10 mmHg。总有效率=(显效例数+有效例数)/患者例数×100%。

1.5 统计学分析

数据采用SPSS19.0软件处理,计量数据以 $\bar{x} \pm s$ 表示,采用F检验;计数资料用百分比表示,采用 χ^2 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压水平比较

与治疗前相比,两组患者治疗后收缩压(SBP)及舒张压(DBP)水平均降低,差异具有统计学意义(P<0.05);与对照组比较,研究组患者治疗后收缩压(SBP)及舒张压(DBP)更接近于正常水平,差异具有统计学意义(P<0.05)。见表1。

表1 两组患者治疗前后血压水平比较($\bar{x} \pm s$, n=26)

Table 1 Comparison of the blood pressure between the two groups before and after the treatment($\bar{x} \pm s$, n=26)

Groups	Time	SBP(mmHg)	DBP(mmHg)
Control group(n=43)	Before treatment	164.1±7.2	98.1±8.1
	After treatment	132.8±4.1*	87.2±8.3*
Research group(n=43)	Before treatment	166.2±7.6	97.9±7.3
	After treatment	121.3±4.2*#	79.1±7.2*#

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 VEGF, Hcy 及脂联素水平变化情况

治疗前相比,两组患者治疗后血清脂联素(Adiponectin)水平均升高,而血管内皮生成因子(VEGF)及同型半胱氨酸(Hcy)水平均降低,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脂联素(Adiponectin)水平较高,而血管内皮生成因子(VEGF)及同型半胱氨酸(Hcy)水平较低,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 VEGF, Hcy 及脂联素水平比较 ($\bar{x} \pm s$)Tab 2 Comparison of the serum levels of VEGF, Hcy and adiponectin between the two groups before and after the treatment ($\bar{x} \pm s$)

Groups	Time	Adiponectin (mg/L)	VEGF (pg/mL)	Hcy ($\mu\text{mol/L}$)
Control group(n=43)	Before treatment	6.6 $\pm$ 0.8	146.6 $\pm$ 16.6	21.7 $\pm$ 4.2
	After treatment	8.2 $\pm$ 0.1*	108.2 $\pm$ 11.1*	17.3 $\pm$ 3.5*
Research group(n=43)	Before treatment	6.2 $\pm$ 0.6	144.5 $\pm$ 15.7	22.1 $\pm$ 4.7
	After treatment	11.3 $\pm$ 1.3**	91.3 $\pm$ 12.1**	12.3 $\pm$ 2.4**

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

(69.8%), 差异具有统计学意义(P<0.05)。见表 3。

研究组患者治疗总有效率(90.7%)显著高于对照组

表 3 两组临床疗效比较[例(%)]

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

Groups	n	Excellent	Effective	Invalid	Total effective rate
Control group	43	11(25.6%)	19(44.2%)	13(30.2%)	30(69.8%)
Research group	43	21(48.8%)	18(41.8%)	4(9.3%)	39(90.7%)*

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

3 讨论

高血压是引起冠状动脉性心脏病、充血性心力衰竭、主动脉瘤、脑血管意外、慢性肾衰竭的发病以及病死率升高的重要因素^[7]。清肝降压胶囊属于中药制剂,主要用于高血压患者肝火亢盛、肝肾阴虚症等^[8]。厄贝沙坦是一种血管紧张素-II受体阻滞剂,其作用机制是通过抑制血管紧张素转换酶的生成,降低机体血管紧张素II的含量缓解全身小动脉平滑肌收缩、降低循环血量及增加回心血量^[9,10]。本研究中,两组患者治疗后SBP及DBP均降低(P<0.05);与对照组比较,研究组患者治疗后SBP及DBP更接近于正常水平(P<0.05)。此外,研究组患者治疗总有效率显著高于对照组(P<0.05)。这与既往研究结果相似^[11],说明清肝降压胶囊联合厄贝沙坦治疗原发性高血压的临床疗效显著,能够有效控制患者的血压水平。

脂联素(Adiponectin)是一种胰岛素增敏激素,是由非同源序列、羧基末端球型结构域、氨基末端的分泌信号序列及胶原样结构域四个功能区构成^[12],可促进糖吸收,加强胰岛素及肝脏抑糖能力,增强骨骼肌细胞的脂肪酸氧化,是重要的调节因子,可调节血糖稳态和机体脂质代谢^[13]。本研究结果显示,两组患者治疗后血清脂联素水平均升高,且研究组高于对照组(P<0.05)。结果说明,清肝降压胶囊联合厄贝沙坦治疗原发性高血压,能够通过升高脂联素水平,使脂联素与其受体结合发挥生物学效应,加快能量代谢,增强机体免疫力,使患者血压恢复正常水平。

血管内皮生成因子(VEGF)是一种血管生成活性蛋白,能够增强血管渗透性^[14]。相关研究表明,血管生成因子可加快高血压患者内皮细胞增殖,促进血管生成,增强血管内皮细胞内有丝分裂,增加患者发生出血的风险^[15,19]。本研究结果显示,两组患者治疗后血清中VEGF水平均降低,且研究组低于对照组(P<0.05)。结果说明,清肝降压胶囊联合厄贝沙坦治疗原发性高血压,能够通过降低患者血清VEGF水平起到修复血管内皮损伤的作用,进而改善患者血管通透性,稳定患者血压水平。

血清同型半胱氨酸(Hcy)是一种含硫氨基酸,可参与机体氧化还原及氧化应激反应,通过促进过氧化物及超氧化物生成,损伤血管内皮细胞,改变凝血因子功能^[16]。有研究显示,高浓度的Hcy可损伤阻力血管和容量血管的内皮细胞功能,减少血管舒张因子生成引起血压升高及血管重构^[17]。还有研究表明,血清Hcy还能抑制凝血酶调节蛋白表达,降低抗凝血酶活性,通过损伤血管内皮功能及血管重构,从而引发外周血管的正常流动受阻,进而导致血压升高^[18,20]。本研究结果显示,两组患者治疗后血清Hcy水平均降低,且研究组低于对照组(P<0.05)。结果说明,清肝降压胶囊联合厄贝沙坦治疗原发性高血压,能够通过降低患者血清Hcy水平,稳定患者血压水平及血管内皮细胞功能,从而抑制血小板聚集,避免血栓形成。

综上所述,清肝降压胶囊联合厄贝沙坦治疗高血压的临床疗效显著,能够升高患者血清脂联素水平,同时降低血管内皮生长因子和同型半胱氨酸水平,值得临床推广应用。

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