

• 论 著 •

厄贝沙坦氢氯噻嗪对高血压患者血清 CRP、IL-6、Hcy、内皮素水平及血液流变学指标的影响

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摘要:目的 探讨厄贝沙坦氢氯噻嗪对高血压患者血清炎症因子[C 反应蛋白(CRP)、白细胞介素 6(IL-6)]、同型半胱氨酸(Hcy)、内皮素、血液流变学水平的影响。方法 148 例原发性高血压患者按照随机分组法分为研究组($n=74$)和对照组($n=74$)。对照组采用常规对症治疗,研究组在对照组治疗的基础上给予厄贝沙坦氢氯噻嗪治疗。两组总疗程均为 3 个月。对比分析两组收缩压和舒张压、血清 CRP 和 IL-6、血浆 Hcy 和内皮素水平、血液流变学指标及进行药物安全性评价。结果 两组患者收缩压和舒张压治疗后较治疗前明显下降($P<0.05$);研究组收缩压和舒张压治疗后明显低于对照组($P<0.05$);研究组血清 CRP 和 IL-6 治疗后水平较治疗前明显减少($P<0.05$);而对照组血清 CRP 和 IL-6 水平治疗前后比较,差异无统计学差异($P>0.05$);研究组血清 CRP 和 IL-6 治疗后明显低于对照组($P<0.05$);研究组血浆 Hcy 和内皮素治疗后较治疗前水平降低($P<0.05$);而对照组血浆 Hcy 和内皮素水平治疗前后比较,差异无统计学意义($P>0.05$);研究组血浆 Hcy 和内皮素水平治疗后明显低于对照组($P<0.05$);两组全血低切黏度、全血高切黏度及血浆黏度治疗前后比较差异均无统计学意义($P>0.05$)。结论 厄贝沙坦氢氯噻嗪可明显降低高血压患者血压、血清炎症、Hcy、内皮素水平,而对血液流变学指标无影响,未见严重不良反应,安全可靠。

关键词:厄贝沙坦氢氯噻嗪; 高血压; 血清炎症因子; 同型半胱氨酸、内皮素; 血液流变学水平

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Influence of irbesartan and hydrochlorothiazide on CRP, IL-6, Hcy and endothelin levels and hemorheology indexes in patients with hypertension

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Abstract: Objective To investigate the influence of irbesartan and hydrochlorothiazide on the serum inflammatory factors (CRP, IL-6), Hcy, endothelin and hemorheology levels in the patients with hypertension. **Methods** 148 cases of essential hypertension were divided into the research group ($n=74$) and the control group ($n=74$) according to the random grouping method. The control group was treated by the conventionally symptomatic therapy, while on this basis the research group was given with the irbesartan and hydrochlorothiazide therapy. The total treatment course of 2 groups were 3 months. The systolic pressure and diastolic pressure, serum CRP and IL-6, plasma Hcy, endothelin levels, hemorheology indexes in the two groups were performed the contrastive analysis. The drug safety was evaluated. **Results** The systolic pressure and diastolic pressure after the treatments in the two groups were significantly decreased compared with before treatment ($P<0.05$); the systolic pressure and diastolic pressure after treatment in the research group were significantly lower than those in the control group ($P<0.05$); the serum CRP and IL-6 levels after treatment in the research group were significantly decreased compared with before treatment ($P<0.05$); but the serum CRP and IL-6 in the control group had no statistically significant difference between before and after treatment ($P>0.05$); the serum CRP and IL-6 levels after treatment in the research group were significantly lower than those in the control group ($P<0.05$); the plasma Hcy and endothelin levels after treatment in the research group were significantly decreased compared with before ($P<0.05$); but which in the control group had no statistically significant difference between before and after treatment ($P>0.05$); the plasma Hcy and endothelin after treatment in the research group were significantly lower than those in the control group ($P<0.05$); but the low blood viscosity, high blood viscosity and plasma viscosity in both two groups had no statistically significant differences between before and after treatment ($P>0.05$). **Conclusion** Irbesartan and hydrochlorothiazide can significantly reduce the blood pressure, serum inflammatory, Hcy and endothelins levels in the patients with hypertension, have no influence on the hemorheologic indexes and no serious adverse reactions, and are safe and reliable.

Key words: irbesartan and hydrochlorothiazide; hypertension; serum inflammatory factor; homocysteine, endothelins; hemorheology level

随着人们生活水平的不断提高及生活方式的改变,高血压发病率呈上升趋势^[1]。高血压是导致并发心血管疾病的高危因素,呈年轻化发展,使患者身心健康和生活质量受到严重影响^[2-3]。厄贝沙坦氢氯噻嗪是一种新型制剂,报道显示,厄贝沙坦氢氯噻嗪对高血压患者的治疗取得了较好的临床效果,

且不良反应少^[4-5]。本研究旨在分析厄贝沙坦氢氯噻嗪治疗对高血压患者血清促炎性因子[C 反应蛋白(CRP)、白细胞介素 6(IL-6)]、同型半胱氨酸(Hcy)、内皮素水平及血液流变学指标的影响,探讨其作用机制,为临床用药提供指导,现报道如下。

1 资料与方法

2.3 血浆 Hcy、内皮素水平的比较 治疗前,两组间血浆 Hcy 和内皮素水平治疗前比较,差异无统计学意义($P>0.05$); 研究组血浆 Hcy、内皮素水平治疗后较治疗前降低,差异有统计学意义($P<0.05$); 对照组血浆 Hcy、内皮素水平治疗前后比较,差异无统计学意义($P>0.05$); 治疗后,研究组血浆 Hcy、内皮素水平均低于对照组,差异均有统计学意义($P<0.05$)。见表 4。

2.4 两组血液流变学指标比较 两组全血低切黏度、全血高切黏度及血浆黏度治疗前后比较,差异均无统计学意义($P>0.05$),见表 5。

2.5 安全性评价 治疗期间两组均未见严重不良反应。

3 讨 论

厄贝沙坦氢氯噻嗪是一种新型制剂,其组成包括厄贝沙坦和氢氯噻嗪^[7]。其中厄贝沙坦是常用的一种降压药物,其半衰期为 12~20 h,降压作用持续时间较长,不良反应少,且服用较为简单,依从性高,且适用于多种类型高血压;其中氢氯噻嗪是一种利尿剂,主要通过利尿、排钠等降低血容量,从而达到降压目的。已有研究报道显示,厄贝沙坦氢氯噻嗪对高血压患者除具有明显的降压作用,还可显著降低血清炎症因子,发挥抗炎作用^[8]。

目前,与高血压相关性炎症因子包括 CRP、IL-6、肿瘤坏死因子- α (TNF- α)等^[9]。CRP 是与炎症相关的一种急性期反应蛋白。高浓度的 CRP 可降低内皮一氧化氮(NO)的释放,而 NO 的降低为促进高血压、动脉粥样硬化及血管事件的关键一步。IL-6 是由内皮细胞、T 细胞分泌的一种多效细胞因子,该细胞因子具有细胞保护功能与致炎效应等多种生理学效应。IL-6 可促进内皮功能紊乱、提升外周血管阻力,从而促进高血压的发生;此外,IL-6 可促进平滑肌细胞增殖,快速增加平滑肌细胞钙离子(Ca^{2+}),导致血管收缩,致使血压上升^[10]。研究报道显示,高血压患者血清 CRP 浓度和 IL-6 水平明显高于健康者^[11]。

Hcy 是一种体内蛋氨酸代谢途径中形成的含硫氨基酸。近年来,报道发现高 Hcy 已成为继糖尿病、高血脂、肥胖、吸烟及高血压等因素后,又一动脉粥样硬化独立危险因素。高 Hcy 主要通过内质网应激、氧化应激及炎症激活损伤内皮细胞功能,且会造成内皮素分泌增加,降低 NO 分泌,影响低密度脂蛋白(LDL)、凝血因子、血管平滑肌细胞及血小板等,以及加速动脉粥样硬化的发展。研究报道显示,大多心血管疾病如肺动脉高压、动脉粥样硬化及高血压等,内皮功能紊乱起着重要作用,且高血压患者内皮素水平高于健康者^[12]。本研究表明,研究组血浆 Hcy 和内皮素治疗后明显低于对照组,提示厄贝沙坦

氢氯噻嗪能够显著降低 Hcy 和内皮素水平,改善患者血管内皮功能,进而可延缓和预防动脉粥样硬化。

综上所述,厄贝沙坦氢氯噻嗪可明显降低高血压患者血压、血清炎症、Hcy、内皮素水平,但对血液流变学无影响,未见严重不良反应,安全可靠,具有重要研究意义。

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