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蒙脱石散联合止泻保童颗粒对腹泻患儿血清 CRP 水平 及心肌酶谱的影响 *

雷娟娟¹ 冯慧玲¹ 郝静静¹ 张渊韬¹ 薛峥峰^{2Δ}

(1 延安大学附属医院 儿科四病区 陕西 延安 716000; 2 延安大学附属医院 儿科一病区 陕西 延安 716000)

摘要 目的:研究蒙脱石散联合止泻保童颗粒对腹泻患儿血清 C 反应蛋白(CRP)及心肌酶谱水平的影响。**方法:**回顾性分析 2012 年 7 月至 2013 年 6 月在本院进行治疗的腹泻患儿,39 例采取蒙脱石散治疗(对照组),39 例采取蒙脱石散联合止泻保童颗粒治疗(观察组)。比较两组患儿有关症状改善时间和临床疗效,分析两组患儿治疗前后血清 CRP 及心肌酶谱水平。**结果:**治疗后,观察组总有效率显著高于对照组($P<0.05$),血清 CRP、谷丙转氨酶(ALT)、乳酸脱氢酶(LDH)、肌酸激酶(CK)、谷草转氨酶(AST)、肌酸激酶同工酶(CK-MB)水平均显著低于对照组($P<0.05$),止泻时间、大便恢复至正常时间、退热时间显著短于对照组($P<0.05$)。**结论:**腹泻患儿经蒙脱石散联合止泻保童颗粒治疗较单用蒙脱石散能更有效降低患儿血清 CRP 水平,改善患儿的心肌酶谱水平,患儿的临床症状可快速恢复,临床疗效更好。

关键词:蒙脱石散;止泻保童颗粒;腹泻;C 反应蛋白;心肌酶谱

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Effect of Montmorillonite Powder Combined with Zhixie Baotong Granula on the Serum CRP and Myocardial Enzyme Spectrum Level in Children with Diarrhea*

LEI Juan-juan¹, FENG Hui-ling¹, HAO Jing-jing¹, ZHANG Yuan-tao¹, XUE Zheng-feng^{2Δ}

(1 Fourth Department of Pediatrics, Affiliated Hospital of Yan'an University, Yan'an, Shaanxi, 716000, China;

2 First Department of Pediatrics, Affiliated Hospital of Yan'an University, Yan'an, Shaanxi, 716000, China)

ABSTRACT Objective: To study the effect of montmorillonite powder combined with Zhixie Baotong granula on the serum CRP and myocardial enzyme spectrum level in children with diarrhea. **Methods:** The clinical data of patients with diarrhea treated from July 2012 to June 2013 were retrospectively analyzed, 39 cases underwent montmorillonite powder (control group), and 39 cases were treated with montmorillonite powder combined with Zhixie Baotong granula (observation group). The symptoms improve time and clinical curative effect between two groups were compared, the serum CRP and myocardial enzyme levels before and after treatment serum between two groups were analyzed. **Results:** After treatment, the total effectiveness of observation group was significantly higher than that of the control group ($P<0.05$). the serum CRP, alanine aminotransferase (ALT), lactate dehydrogenase (LDH), creatine kinase (CK), aspartate aminotransferase (AST), creatine kinase isoenzyme (CK-MB) levels were significantly lower than those of the control group ($P<0.05$), the antidiarrheal time, shit back to normal time, antifebrile time were significantly shorter than those of the control group. **Conclusion:** Montmorillonite powder combined with Zhixie Baotong Granula could more effectively reduce the serum CRP level, improve the myocardial enzyme spectrum, clinical symptoms and had better clinical curative effect than montmorillonite alone in the treatment of children with diarrhea.

Key words: Montmorillonite powder; Zhixie Baotong Granula; Diarrhea; C-reactive protein; Myocardial enzyme spectrum

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前言

腹泻在儿科中属于较为常见的一种多发疾病,和内源性、外源性病因相关,对患儿的健康发展具有直接性的影响^[1]。对症治疗在治疗小儿腹泻中属于较为常见的方式,但目前依然缺乏

统一确切治疗方式,若不能及时或合理治疗,极有可能引发酸中毒、水电解质紊乱等并发症,给患儿的生命带来严重威胁^[2,3]。为给临床在治疗腹泻患儿中提供更多可借鉴之处,本研究就蒙脱石散联合止泻保童颗粒对腹泻患儿血清 CRP 及心肌酶谱水平影响进行了研究。

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作者简介:雷娟娟(1980-),女,硕士,主治医师,研究方向:新生儿学

Δ 通讯作者:薛峥峰(1979-),男,本科,主治医师,电话:13409114306

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1 资料与方法

1.1 临床资料

对2012年7月至2013年6月本院收治的腹泻患儿进行分析,其中经蒙脱石散治疗的39例患儿视为对照组,经蒙脱石散联合止泻保童颗粒治疗的39例患儿视为观察组。其中对照组中男23例,女16例;年龄为 (13.42 ± 2.33) 个月;平均病程为 (14.54 ± 1.33) 天。观察组中男20例,女19例;年龄为 (13.25 ± 2.31) 个月;平均病程为 (14.51 ± 1.29) 天。两组患儿的性别、年龄、病程临床资料方面无明显差异($P > 0.05$)。纳入标准:①病程在一个月以内;②和平时相比,大便次数明显增加;③大便呈现为水样便、稀便、脓血便或黏液便;④无痢疾等传染性腹泻患儿。排除标准:①并发精神疾病患儿;②依从性较差,难以配合医护人员完成本次研究;③不配合医护人员工作;④对本次研究中所需药物存在过敏现象。

1.2 治疗方法

在患儿入院后给予常规处理,包括静脉补液、纠正水电解质紊乱、降温、抗感染、抗病毒等。对照组使用蒙脱石散(生产厂家:博福-益普生(天津)制药有限公司),规格: $3\text{ g} \times 10$ 袋,生产批号:20140212)进行治疗,空腹口服,年龄不足1岁的患儿剂量为1g/次,3次/天;年龄在1岁及其以上的患儿剂量为1.5g/次,3次/天。观察组患儿在此基础上采取止泻保童颗粒(生产厂家:安徽华佗国药股份有限公司,规格:2.5g/袋,生产批号:20140122)进行治疗,年龄不足1岁的患儿剂量为0.8g/次,2次/天;年龄在1岁及其以上的患儿剂量为2.5g/次,2次/天。所有患儿均连续治疗5天。

1.3 观察指标

对两组患儿治疗5天后的临床疗效予以评价,标准如下^[4]:

经治疗5天后,患儿的全身症状均消失,粪便形状以及次数恢复至正常则为显效;经治疗5天后,患儿的全身症状明显改善,分娩次数以及形状明显好转则为有效;经治疗5天后,患儿的全身症状、粪便次数以及形状均无好转甚至恶化则为无效。其中大便次数正常是指1~2次/天,而哺乳期的婴幼儿次数为4次/天。粪便性状正常主要为黄软便,而哺乳期的婴幼儿呈现出黄稀便,但不是水便。总有效=显效+有效。

比较两组患儿治疗前和治疗5天后血清C反应蛋白(CRP)及心肌酶谱水平变化,分别在治疗前和治疗5天后抽取2组患儿3mL的空腹肘静脉血,3000 r/min,离心10 min,提取血清放置在 -50°C 低温箱中待测,使用南京普朗医用设备有限公司提供的全自动生化分析仪检测血清CRP及心肌酶谱,CRP方法为免疫比浊法,心肌酶诊断试剂盒由山东科立森生化技术有限公司提供,心肌酶谱指标包括血清谷丙转氨酶(ALT)、乳酸脱氢酶(LDH)、肌酸激酶(CK)、谷草转氨酶(AST)、肌酸激酶同工酶(CK-MB)、比较两组患儿有关症状改善时间,包括止泻时间、大便恢复至正常时间、退热时间。分析两组患儿的不良反应情况。

1.4 统计学处理

本次实验数据选取SPSS11.5软件包予以处理,用 $(\bar{x} \pm s)$ 来表示计量资料,并予以t检验,用 $[n(\%)]$ 来表示计数资料和等级资料,其中对计数资料进行 χ^2 检验,等级资料进行秩和检验,其 $P < 0.05$ 表明差异具有统计学意义。

2 结果

2.1 两组患儿治疗的临床疗效的比较

观察组患儿总的有效率明显比对照组高 $[89.74\%(35/39)$ 比 $64.10\%(25/39)](P < 0.05)$,见表1。

表1 两组患儿治疗的临床疗效比较[例(%)]

Table 1 Comparison of the Clinical efficacy between two groups[n(%)]

Groups	Case	Excellent	Effective	Invalid	Total effective rate
Observation group	39	28(71.79)	7(17.95)	4(10.26)	35(89.74)*
Control group	39	10(25.64)	15(38.46)	14(35.90)	25(64.10)

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

2.2 两组患儿治疗前后血清CRP水平的比较

治疗前,两组患儿的CRP水平比较无显著性差异($P > 0.05$);治疗后,两组患儿的血清CRP水平较治疗前显著降低

($P < 0.05$),观察组在治疗后的血清CRP水平显著低于对照组($P < 0.05$),见表2。

表2 两组患儿治疗前后的血清CRP水平比较($\bar{x} \pm s$, mg/L)

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

Groups	Case	Before treatment	After treatment
Observation group	39	35.23 ± 3.11	$8.32 \pm 1.22^{**}$
Control group	39	35.26 ± 3.15	$14.87 \pm 2.43^{*}$

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

2.3 两组患儿治疗前后血清心肌酶谱水平比较

治疗前,两组患儿的ALT、LDH、CK、AST、CK-MB水平比较无显著性差异($P > 0.05$);治疗后,两组患儿的ALT、LDH、CK、

AST、CK-MB水平较治疗前显著降低($P < 0.05$),其中观察组的ALT、LDH、CK、AST、CK-MB水平显著低于对照组,差异均有统计学意义($P < 0.05$),见表3。

表 3 两组患儿治疗前后的血清心肌酶谱水平比较($\bar{x} \pm s$)Table 3 Comparison of the cardiac creatase levels between two groups before and after treatment ($\bar{x} \pm s$)

Groups	n	ALT(U/L)		LDH(U/L)		CK(U/L)		AST(U/L)		CK-MB(U/L)	
		Before treatment	After treatment	Before treatment	After treatment	Before treatment	After treatment	Before treatment	After treatment	Before treatment	After treatment
Observation group	39	42.32±2.11	24.43±1.33	204.65±14.32	171.32±11.32	194.32±3.94	108.76±2.32	55.65±4.323	9.43±3.12	55.63±4.02	38.43±3.21
Control group	39	42.38±2.14	35.65±3.08	204.68±14.29	188.76±12.45	195.03±4.11	156.43±3.02	55.71±4.29	43.32±2.87	55.68±4.01	43.71±3.78

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

2.4 两组患儿有关症状改善时间的比较

显比对照组明显缩短(P<0.05),见表 4。

观察组患儿止泻时间、大便恢复至正常时间、退热时间明

表 4 两组患儿相关症状改善时间的比较($\bar{x} \pm s$)Table 4 Comparison of the symptoms improvement time between two groups($\bar{x} \pm s$)

Groups	Case	Antidiarrheal time(d)	Shit back to normal time(d)	Antifebrile time(h)
Observation group	39	1.63±0.22*	2.33±0.23*	19.44±2.33*
Control group	39	2.13±0.34	3.14±0.36	25.65±2.78

Note: Compared with control group, *P<0.05.

3 讨论

小儿腹泻在儿科中属于较为常见的一种疾病,发病率和小儿呼吸道感染无明显差异性,发病人群以 2 岁以下的儿童为主,常常会导致儿童发育滞后、营养不良、消化吸收功能严重受损,严重者可能会面临死亡的威胁^[5,6]。此病的发病因素较为复杂,包括非感染性和感染性两种,其中非感染性腹泻主要是由喂养不当而引发的,比如食物不耐受、食物过敏、进食过少、过多,药物、气温或环境变化等因素均可能会导致腹泻^[7]。感染性腹泻主要是因为肠道内感染而致,较为常见的病原体有原虫、真菌、细菌、病毒等,最为常见的感染是细菌和病毒感染。其次就是肠道外感染,呼吸道最为常见,比如泌尿系感染、中耳炎、肺炎、支气管炎。急性扁桃体炎、呼吸道感染等,此类感染所导致的腹泻通常有着较轻的临床症状,最为常见的是胃肠道症状,表现为大便水分增加、次数增多,常常伴有食欲不振、呕吐、溢乳等症状,并不会出现全身重度及脱水症状^[7,8]。在临床中较为常见的腹泻患儿大部分属于病毒感染性腹泻,由于儿童缺乏成熟的免疫系统,无健全的免疫功能,病毒易入侵,主要有外源性和内源性病毒^[9]。当前临床中在治疗腹泻患儿中主要以对症治疗为主,尚未发现特效治疗方案^[10]。

蒙脱石散属于较为天然的一种蒙脱石微粒,存在形式主要为粉剂状,伴有层纹状结构,分布方式为非均匀性电荷,能有效消除消化道内病菌、病毒以及产生的毒素,还可抑制和固定病毒^[11]。蒙脱石散在消化道黏膜中有着较强的覆盖保护能力,能提高、修复黏膜屏障在攻击因子中所发挥的防御能力,有着局部止痛和平衡正常菌群的效果。在治疗小儿腹泻中使用蒙脱石散能发挥一定疗效,能明显减少患儿的大便次数,对呕吐、腹痛等症状起着显著性改善作用,但此方式属于单一用药,药物进入血液中需借助消化道作用,因此起效缓慢^[12]。相关研究者提

出在治疗小儿腹泻中应采取多种药物联合方案,可有效提高临床疗效,促进症状尽快得到改善^[13]。

止泻保童颗粒由车前草、芡实、肉桂、薏仁、丁香、木香、砂仁、滑石、肉豆蔻、黄连、广藿香、苍术、茯苓、白术、诃子肉、人参等组合而成^[14]。其中白术、人参能增强抵抗力、具有扶正祛邪、补气功效;肉桂、砂仁、丁香、木香能解除内脏平滑肌痉挛、具备理气、温脾胃止痛作用;苍术、广藿香能增强消化力、促进胃液分泌、具备开胃消食作用;诃子肉、滑石、肉豆蔻具备止敛、涩肠止泻功效,减少大便次数,使其恢复正常;茯苓、车前草、芡实具有利尿、健脾止泻功效,减少患儿排便次数,使粪便质变稠;黄连具有明显的抗菌作用,在炎症性、渗出性、分泌性腹泻中均有着较好的治疗效果^[15]。本研究在常规治疗及蒙脱石散治疗基础上,对腹泻患儿加以止泻保童颗粒联合治疗,其临床疗效显著优于单纯蒙脱石散,并且患儿的止泻时间、大便恢复至正常时间、退热时间相关症状改善时间也得到显著性缩短。究其原因可能是因为止泻保童颗粒能解除内脏平滑肌痉挛、具备理气、温脾胃止痛作用,能增强消化力、促进胃液分泌,加强肠道蠕动,抑制病原菌增生和复制。

轮状病毒是患儿发生腹泻较为常见的一种病原菌,会致使患儿身体出现急剧脱水现象,若脱水较为严重可能会导致患儿体液电解质紊乱、酸碱失衡,若不能较好的控制病因极有可能导致循环系统衰竭及肾功能衰竭,可见,对患儿的腹泻症状予以及时有效的控制显得颇为关键^[16-18]。相关研究者提出轮状病毒会通过血液对心肌造成直接损伤,并且心肌损伤还会导致电解质紊乱、酸碱失衡、脱水等现象,当患儿出现轻度脱水后,其血清 ALT、LDH、CK、AST、CK-MB 水平有所上升,一旦发展至中度脱水时,血清 ALT、LDH、CK、AST、CK-MB 水平会明显升高,提示患儿的心肌已受到累及,此时需加以重视^[19,20]。本次研究中通过对腹泻患儿予以蒙脱石散联合止泻保童颗粒治疗后,

发现患儿的血清 ALT、LDH、CK、AST、CK-MB 水平较治疗前得到显著性降低,其降低的幅度显著低于单纯的蒙脱石散治疗方案。血清 CRP 为急性期的生物活性细胞因子,一般情况下,CRP 水平在人体中的含量较低,当发生炎症反应时,会急剧升高血清水平,可将 CRP 视为腹泻的反应指标。本次研究中,腹泻患儿经蒙脱石散联合止泻保童颗粒治疗后,其血清 CRP 水平得到显著性降低,其降低的效果优于单纯的蒙脱石散治疗方案,提示蒙脱石散联合止泻保童颗粒可有效降低患儿血清 CRP 水平。

综上所述,蒙脱石散联合止泻保童颗粒治疗较单用蒙脱石散能更有效降低腹泻患儿血清 CRP 水平,改善心肌酶谱水平,临床疗效更好。

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