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参苓白术散联合推拿治疗急性轮状病毒感染性腹泻患儿的疗效 及对胃肠激素和免疫力的影响*

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摘要 目的:探讨参苓白术散联合推拿治疗急性轮状病毒感染性腹泻患儿的疗效及对胃肠激素和免疫力的影响。**方法:**选取 2018 年 12 月~2019 年 12 月期间我院收治的 80 例急性轮状病毒感染性腹泻患儿,按照随机数字表法分为对照组(n=40)和研究组(n=40),对照组患儿予以常规基础治疗,研究组在对照组基础上给予参苓白术散联合推拿治疗,比较两组患儿疗效、中医证候积分、胃肠激素指标[胃泌素(GAS)、胃动素(MOT)以及血管活性肠肽(VIP)]和免疫力指标[免疫球蛋白 A(IgA)、免疫球蛋白 G(IgG)、CD4⁺/CD8⁺],记录两组不良反应发生情况。**结果:**研究组治疗 7 d 后的临床总有效率为 95.00%(38/40),高于对照组的 67.50%(27/40)($P<0.05$)。两组治疗 7 d 后 GAS、MOT、VIP 均下降,且研究组低于对照组($P<0.05$)。两组治疗 7 d 后 IgA、IgG、CD4⁺/CD8⁺均升高,且研究组高于对照组($P<0.05$)。两组治疗期间不良反应发生率对比未见统计学差异($P>0.05$)。两组治疗 7 d 后腹痛、大便次数、大便性状、体温中医证候积分均降低,且研究组低于对照组($P<0.05$)。**结论:**参苓白术散联合推拿治疗急性轮状病毒感染性腹泻患儿,疗效显著,可有效改善患儿胃肠状况,提高患儿免疫力,且安全性较好。

关键词:参苓白术散;推拿;急性轮状病毒感染;腹泻;疗效

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Effects of Shenling Baizhu Powder Combined with Massage on Gastrointestinal Hormones and Immunity in Children with Acute Rotavirus Infection Diarrhea*

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ABSTRACT Objective: To investigate the effect of Shenling Baizhu powder combined with massage on gastrointestinal hormones and immunity in children with acute rotavirus diarrhea. **Methods:** 80 children with acute rotavirus infection diarrhea who were admitted to our hospital from December 2018 to December 2019 were selected, they were divided into control group (n=40) and study group (n=40) by random number table. Children in the control group were treated with routine basic treatment. The study group was treated with Shenling Baizhu powder combined with massage on the basis of the control group. The curative effect, TCM syndrome integral, and gastrointestinal hormone indexes [gastrin (GAS), motilin (MOT) and vasoactive intestinal peptide (VIP)] and immune indexes [immunoglobulin A (IgA), immunoglobulin G (IgG), CD4⁺/CD8⁺] of the two groups were compared. Adverse reactions were recorded in both groups. **Results:** The total clinical effective rate of the study group at 7 d after treatment was 95.00% (38/40), which was higher than 67.50% (27/40) of the control group ($P<0.05$). The GAS, MOT and VIP of the two groups at 7d after treatment were all decreased, and those of the study group were lower than those of the control group ($P<0.05$). The levels of IgA, IgG and CD4⁺/CD8⁺ of the two groups at 7 d after treatment were all increased, and those of the study group were higher than those of the control group ($P<0.05$). There was no significant difference in the incidence of adverse reactions between the two groups ($P>0.05$). The scores of abdominal pain, stools frequency, stools characteristics and body temperature of TCM syndromes were all decreased of the two groups at 7d after treatment, and the study group was lower than the control group ($P<0.05$). **Conclusion:** Shenling Baizhu powder combined with massage is effective in the treatment of children with acute rotavirus infection diarrhea. It can effectively improve the gastrointestinal status, improve the immunity of children, and has good safety.

Key words: Shenling Baizhu powder; Massage; Acute rotavirus infection; Diarrhea; Curative effect

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前言

腹泻是临床常见的消化道疾病,以脱水、高热等为主要症状,在我国发病率仅次于呼吸道感染,位居第二^[1]。由于儿童身体各项机能尚未发育完全,体质较弱,已成为该病的高发人群。轮状病毒感染性腹泻通常由感染性因素引发,急性轮状病毒感染性腹泻患儿若未能得到及时治疗,可因电解质紊乱、脱水等问题引发死亡^[2-4]。现临床针对急性轮状病毒感染性腹泻患儿的治疗尚无统一方案,多以纠正电解质、抗病毒等对症治疗为主,然而疗效并不十分理想^[5,6]。近年来,中西医结合治疗急性轮状病毒感染性腹泻取得了较大进展,中医理论中将其归于“久泄”之中,认为该病主要是由于脾胃功能失调、内伤饮食、外感六淫等所引起^[7]。故中医治疗主张以健脾益胃、扶正固本为基本治则。参苓白术散是一种中成药,具有健脾养胃益气的功效,对于脾胃虚弱的人群较为适合^[8]。推拿是中医治疗的一种,通过用手在人体上按经络、穴位用手法进行治疗,进而达到扶正固本的目的^[9]。本研究通过对我院收治的部分急性轮状病毒感染性腹泻患儿给予参苓白术散联合推拿治疗,疗效明确。

1 资料与方法

1.1 一般资料

选取2018年12月~2019年12月间我院接收的80例急性轮状病毒感染性腹泻患儿,纳入标准:(1)诊断标准参考《诸福棠实用儿科学》^[10],临床出现不同程度的呕吐、腹泻,大便均为水样或蛋花样,并检测出轮状病毒;(2)年龄2~6岁,发病时间≤72h;(3)患儿家属知情本次研究且签署了同意书;(4)对本次研究用药无过敏症者。排除标准:(1)已发生器质性病变或已有其他脏器疾病者;(2)重度脱水或存在频繁呕吐者;(3)存在营养不良的患儿;(4)由其他疾病所引起的慢性腹泻症状者;(5)依从性差,中途退出治疗者。根据随机数字表法分为对照组(n=40)和研究组(n=40),其中对照组男18例,女22例,年龄2~6岁,平均(4.29±0.83)岁;体质量指数7~13 kg/m²,平均(10.82±0.88)kg/m²;发病至入院时间6~72h,平均(37.39±5.27)h。研究组男19例,女21例,年龄2~5岁,平均(4.17±0.72)岁;体质量指数7~14 kg/m²,平均(10.96±0.81)kg/m²;发病至入院时间10~70h,平均(38.06±6.15)h。两组一般资料对比无差异(P>0.05),组间基线资料具有可比性。此次研究已获取我院伦理学委员会批准进行。

1.2 方法

两组患儿均给予维持酸碱平衡、饮食指导、维持水电解质平衡、退热等常规处理,视患儿具体情况给予枯草杆菌二联活

菌颗粒(北京韩美药品有限公司,国药准字S20020037,规格:每袋装1g)。用法为2~3 g/次,3次/d,温水冲服,症状严重者可视情况进行加量。研究组在对照组的基础上+参苓白术散联合推拿治疗,其中参苓白术散(陕西盘龙药业集团股份有限公司,国药准字Z61020046,规格:每袋装3g),2袋/次,3次/d,温水冲服。脾虚证依次推三关,摩腹揉脐,推上七节骨,揉龟尾;推拿方法如下:寒湿证依次推上七节骨、三关,揉脐、外劳宫、龟尾,按足三里;湿热证依次推天河水,揉天枢;伤食泻依次揉中脘,摩腹,点揉天枢。1次/d,20 min/次。两组患儿均连续治疗7d。

1.3 观察指标

(1)中医证候积分:对两组患儿治疗前、治疗7d后的中医证候进行评分,其中中医证候包括腹痛、大便次数、大便性状、体温,按严重程度由轻、中、重评分0分,2分,4分。(2)疗效:记录两组治疗7d后的临床疗效。疗效判定标准依据中医证候积分制定^[11]。其中痊愈:治疗7d后中医证候积分减分率100%;显效:治疗7d后中医证候积分减分率>70%,无效:治疗7d后中医证候积分减分率≤70%。总有效率=痊愈率+显效率。中医证候积分减分率=(治疗前-治疗后)/治疗前×100%。(3)胃肠激素指标、免疫力指标:于治疗前、治疗7d后分别抽取4 mL患儿空腹静脉血,经离心处理(离心半径12 cm,3900 r/min离心14 min),分离血清,置于-40℃冰箱中待测。参考试剂盒(武汉华美生物科技有限公司)说明书,采用酶联免疫吸附试验检测胃肠激素指标:胃泌素(Gastrin, GAS)、胃动素(Motilin, MOT)以及血管活性肠肽(Vasoactive intestinal peptide, VIP)。采用日立7060全自动生化分析仪检测免疫功能指标:免疫球蛋白A(Immunoglobulin A, IgA)、免疫球蛋白G(Immunoglobulin G, IgG)、CD4⁺/CD8⁺。(4)安全性评价:记录两组治疗期间不良反应情况。

1.4 统计学方法

采用SPSS25.0进行统计分析,计数资料以[n(%)]表示,采用卡方检验,计量资料以($\bar{x} \pm s$)表示,采用t检验。以 $\alpha=0.05$ 为检验标准。

2 结果

2.1 疗效比较

研究组治疗7d后的临床总有效率为95.00%(38/40),高于对照组的67.50%(27/40)(P<0.05);详见表1。

2.2 两组胃肠激素比较

两组患儿治疗前GAS、MOT、VIP比较差异无统计学意义(P>0.05);两组治疗7d后GAS、MOT、VIP均下降,且研究组低于对照组(P<0.05);详见表2。

表1 两组临床疗效比较【例(%)】

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

Groups	Cure	Valid	Invalid	Total clinical effective rate
Control group(n=40)	11(27.50)	16(40.00)	13(32.50)	27(67.50)
Study group(n=40)	15(37.50)	23(57.50)	2(5.00)	38(95.00)
χ^2				9.928
P				0.002

表 2 两组胃肠激素比较($\bar{x} \pm s$)

Table 2 Comparison of gastrointestinal hormones between the two groups($\bar{x} \pm s$)

Groups	GAS(ng/L)		MOT(ng/L)		VIP(ng/L)	
	Before treatment	7 d after treatment	Before treatment	7 d after treatment	Before treatment	7 d after treatment
Control group(n=40)	23.27±2.25	19.28±3.20*	137.91±8.35	128.32±10.27*	164.31±19.28	149.89±21.36*
Study group(n=40)	23.71±3.32	15.14±3.25*	136.68±8.79	101.75±15.94*	162.84±16.22	124.59±18.25*
t	0.694	5.741	0.642	8.862	0.369	5.695
P	0.490	0.000	0.523	0.000	0.713	0.000

Note: compared with before treatment, * $P < 0.05$.

2.3 两组免疫力指标比较

两组患儿治疗前 IgA、IgG、CD4⁺/CD8⁺ 比较差异无统计学

意义($P > 0.05$);两组治疗 7 d 后 IgA、IgG、CD4⁺/CD8⁺ 均升高,且研究组高于对照组($P < 0.05$);详见表 3。

表 3 两组免疫力指标比较($\bar{x} \pm s$)

Table 3 Comparison of immunity indexes between the two groups($\bar{x} \pm s$)

Groups	IgA(g/L)		IgG(g/L)		CD4 ⁺ /CD8 ⁺	
	Before treatment	7 d after treatment	Before treatment	7 d after treatment	Before treatment	7 d after treatment
Control group(n=40)	1.08±0.16	1.23±0.17*	8.64±0.36	12.45±1.38*	1.28±0.16	1.41±0.21*
Study group(n=40)	1.11±0.12	1.54±0.11*	8.51±0.41	15.63±1.42*	1.24±0.21	1.68±0.23*
Groups	0.949	9.683	1.507	10.157	1.002	5.483
P	0.346	0.000	0.146	0.000	0.319	0.000

Note: compared with before treatment, * $P < 0.05$.

2.4 两组不良反应发生率比较

治疗期间,对照组患儿出现 1 例肝肾功能受损,不良反应发生率为 2.50%(1/40);研究组患儿出现 2 例肝肾功能受损,不良反应发生率为 5.00%(2/40),两组治疗期间不良反应发生率对比未见统计学差异($\chi^2=0.346$, $P=0.556$)。

2.5 两组中医证候积分比较

两组患儿治疗前大便性状、体温、大便次数、腹痛比较无差异($P > 0.05$);两组治疗 7 d 后腹痛、大便次数、大便性状、体温均降低,且研究组低于对照组($P < 0.05$);详见表 4。

表 4 两组中医证候积分比较($\bar{x} \pm s$)

Table 4 Comparison of TCM syndrome scores between two groups($\bar{x} \pm s$)

Groups	Abdominal pain		Stools frequency		Stools characteristics		Body temperature	
	Before	7 d after	Before	7 d after	Before	7 d after	Before	7 d after
	treatment	treatment	treatment	treatment	treatment	treatment	treatment	treatment
Control group(n=40)	3.14±0.37	2.23±0.29*	2.98±0.19	2.14±0.26*	3.06±0.25	2.13±0.31*	2.96±0.27	1.93±0.21*
Study group(n=40)	3.09±0.31	1.35±0.21*	3.02±0.24	1.54±0.28*	3.01±0.28	1.16±0.24*	2.91±0.33	1.16±0.19*
t	0.655	15.544	0.826	9.931	0.842	15.648	0.742	17.196
P	0.514	0.000	0.411	0.000	0.402	0.000	0.461	0.000

Note: compared with before treatment, * $P < 0.05$.

3 讨论

由于小儿消化功能、免疫功能尚未完全发育成熟,功能相对成人较差,导致小儿胃肠道消化酶分泌不足,胃肠功能紊乱易发生紊乱,容易发生腹泻^[12-14]。引起腹泻的原因较多,包括非感染因素以及病原菌感染,其中尤以病原菌感染中的轮状病毒感染最为常见^[15-17]。急性轮状病毒传染性腹泻多起病急,病程短,容易出现脱水症状,严重者甚至脱水死亡^[18-20]。故在疾病早期给予及时有效的治疗对于改善患儿预后具有积极的临床意义。常规的抗病毒、纠正电解质、维持酸碱度平衡等治疗方

法虽可在一定程度上缓解患儿症状,但起效较慢,难以达到预期效果。中医认为急性轮状病毒传染性腹泻辨证多属标实本虚之证,病位在小肠、胃、大肠、脾,病机为脾胃虚弱,水湿内停,加之先天不足,胃肠自身负担较重,易出现饮食内伤,同时此时易受到外来六淫侵袭,最终出现泄泻^[21]。参苓白术散为治疗脾胃虚寒之常用方剂,有研究显示急性非感染性腹泻经参苓白术散的治疗后,症状可得到显著改善^[22]。推拿治疗则是以辨证结合补脾胃为宗旨进行推拿,近年来已逐渐应用于小儿疾病的治疗中^[23]。

本次研究结果表明,研究组治疗后的疗效较对照组更佳,中医证候积分改善效果优于对照组,提示急性轮状病毒传染性腹泻患儿在推拿的基础上联合参苓白术散,疗效可进一步提升。分析其原因,参苓白术散的主要成分包括薏苡仁、黄连、山药、炙甘草、茯苓、炒白术、砂仁、党参、葛根等。其中茯苓、炒白术、党参健脾利湿,山药健脾益气止泻,黄连、葛根清热解毒,薏苡仁、炙甘草健脾和中,砂仁醒脾和胃,上述药材均可发挥健脾益胃、扶正固本之效^[24]。而通过对患儿机体体表进行推拿,形成一种能量反馈以改变脏腑的生理及病理状态,进而调整患儿整体功能,促进患儿恢复^[25]。既往研究结果证实^[26],免疫功能紊乱及胃肠道激素分泌失衡在小儿腹泻的病情进展中发挥重要作用,且与患儿的预后密切相关。GAS可促进胃肠道蠕动或痉挛,进而导致腹泻的发生^[27];MOT可增加肠粘膜电解质及水分分泌,导致胃肠腹泻发生;VIP可降低胃肠道蠕动收缩功能,增加肠道应激反应^[28]。IgA、IgG可反映机体体液免疫功能,当细胞免疫功能紊乱时,可出现水平下降现象;CD4⁺/CD8⁺则是评价机体细胞免疫功能的重要指标,当其水平下降时,提示出现免疫紊乱^[29]。本次研究结果还显示,两组患儿胃肠状况、免疫力均有所改善,且研究组改善效果更佳。究其原因,推拿治疗通过手法穴位刺激增强肠蠕动,有利于病毒最大化排出体外,进而改善患儿胃肠激素状况。现代药理研究表明^[30],黄连中的黄连总生物碱具有提高机体免疫功能的作用;党参则具有增加胃动力、提高免疫功能的效用。同时两组不良反应发生率对比相当,可见参苓白术散联合推拿治疗安全可靠,不会增加不良反应。本研究尚存在样本量较小、未考察不同剂量参苓白术散或不同推拿方案治疗效果的不足,今后将采取扩大样本量、增加不同剂量用药分组或不同推拿方案分组的措施进一步研究分析,以期获得更加精确的结果。

综上所述,急性轮状病毒传染性腹泻患儿在推拿的基础上联合参苓白术散,疗效显著,可有效改善患儿胃肠状况,提高患儿免疫力,且安全性较好。

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