

羧甲淀粉钠治疗反复呼吸道感染患儿的疗效观察

王伟文*, 阎云芸(丽水市中心医院儿科, 浙江 丽水 323000)

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摘要 目的:观察羧甲淀粉钠治疗反复呼吸道感染(RRI)患儿的临床疗效。方法:选取RRI患儿110例,按随机数字表法分为观察组和对照组,各55例。对照组患儿给予抗感染、抗病毒、退热及止咳化痰等常规治疗,观察组患儿在对照组基础上口服羧甲淀粉钠溶液治疗,其中患儿<4岁7 ml,4~7岁10 ml,>7岁15 ml,tid。两组患儿均连续治疗3个月。观察两组患儿治疗前后细胞免疫功能指标CD4⁺、CD8⁺、CD4⁺/CD8⁺水平及体液免疫功能指标免疫球蛋白(Ig)G、IgA、IgM水平变化,并评估两组患儿的临床疗效。结果:对照组患儿治疗前后CD4⁺、CD8⁺、CD4⁺/CD8⁺水平比较,差异无统计学意义($P>0.05$);治疗后,观察组患儿CD4⁺及CD4⁺/CD8⁺水平明显升高,且明显高于对照组,CD8⁺水平明显降低,且明显低于对照组,差异均有统计学意义($P<0.05$)。对照组患儿治疗前后IgG、IgA、IgM水平比较,差异无统计学意义($P>0.05$);治疗后,观察组患儿IgG、IgA、IgM水平均明显升高,且明显高于对照组,差异有统计学意义($P<0.05$)。观察组患儿总有效率为92.73%,明显高于对照组(78.18%),差异有统计学意义($P<0.05$)。结论:羧甲淀粉钠治疗RRI患儿的疗效较确切,且能明显改善患儿的细胞免疫及体液免疫功能。

关键词 反复呼吸道感染;羧甲淀粉钠;细胞免疫;体液免疫

Efficacy Observation of Carboxymethyl Starch in the Treatment of Recurrent Respiratory Infection Children

WANG Weiwen, YAN Yunyun (Dept. of Paediatrics, Lishui Municipal Center Hospital, Zhejiang Lishui 323000, China)

ABSTRACT OBJECTIVE: To observe clinical efficacy of carboxymethyl starch in the treatment of recurrent respiratory infection (RRI) children. METHODS: 110 RRI children were selected and randomly divided into observation group and control group, with 55 children in each group. Control group was given routine treatment, such as anti-infection, anti-virus, abatement of fever, relieving cough, phlegm transformation and etc. Observation group was additionally given Carboxymethyl starch sodium solution (7 ml for <4 year-old, 10 ml for 4-7 year-old, 15 ml for >7 year-old) on the basis of control group. Both groups received consecutive treatment for 3 months. The changes of cellular immunity function index CD4⁺, CD8⁺ and CD4⁺/CD8⁺ and humoral immunity index IgG, IgA and IgM were observed in 2 groups before and after treatment, and clinical efficacy was evaluated in 2 groups. RESULTS: There was no statistical significance in CD4⁺, CD8⁺ and CD4⁺/CD8⁺ levels of control group before and after treatment ($P>0.05$); after treatment, CD4⁺ and CD4⁺/CD8⁺ of observation group obviously increased, while CD8⁺ level obviously declined; the observation group was better than control group, with statistical significance ($P<0.05$). There was no statistical significance in IgG, IgA and IgM levels of control group, with statistical significance ($P>0.05$); after treatment, IgG, IgA and IgM levels of control group increased significantly, and the observation group was better than control group, with statistical significance ($P<0.05$). Total effective rate of observation group was 92.73%, which was much higher than that in control group (78.18%), with statistical significance ($P<0.05$). CONCLUSIONS: Carboxymethyl starch has definite therapeutic efficacy on RRI, and can obviously improve cellular and humoral immunity function.

KEYWORDS Recurrent respiratory infection; Carboxymethyl starch; Cellular immunity; Humoral immunity

反复呼吸道感染(Recurrent Respiratory Infection, RRI)是儿科门诊常见呼吸道疾病之一,具有反复发作、难愈、治疗棘手等特点^[1]。RRI患儿的病因及发病机制尚不完全明确。有研究证实,机体免疫功能低下在其发病过程中具有促进作用^[2]。羧甲基淀粉钠是一种从植物玉米中提取的免疫调节剂,用于辅助治疗RRI患儿,疗效较确切,但国内外少有是否具有改善患儿的免疫功能的报道^[3]。因此,本研究观察了羧甲淀粉钠治疗RRI患儿的疗效及对免疫功能的影响。

1 资料与方法

1.1 研究对象

选取2013年2月—2014年2月我院儿科门诊收治的RRI

*副主任医师。研究方向:儿科临床。电话:0578-2681018。E-mail:lishuiwangww@126.com

患儿110例,按随机数字表法分为观察组和对照组,各55例。两组患儿一般资料比较,差异无统计学意义($P>0.05$),具有可比性,详见表1。本研究方案经医院医学伦理委员会讨论通过,入组前所有患儿监护人均知情同意并签署知情同意书。

表1 两组患儿一般资料比较($\bar{x}\pm s$)

Tab 1 Comparison of general situation of children between 2 groups($\bar{x}\pm s$)

组别	n	性别,例		年龄,岁	病程,年	感染频率,次/年
		男	女			
观察组	55	31	24	4.7±0.8	2.0±0.4	9.8±1.9
对照组	55	33	22	4.9±0.7	1.9±0.5	10.2±2.1
P		>0.05		>0.05	>0.05	>0.05

1.2 纳入与排除标准

纳入标准:符合第23届国际儿科大会制定的RRI患儿诊

断标准^[4]。排除标准:(1)先天性心肺支气管疾病、原发性免疫缺陷、哮喘及结核者;(2)治疗前8周接受过免疫调节剂及糖皮质激素治疗者。

1.3 治疗方法

对照组患儿给予抗感染、抗病毒、退热及止咳化痰等常规治疗。观察组患儿在对照组基础上口服羧甲淀粉钠溶液(四川省通园制药有限公司,批准文号:国药准字H20063114,规格:100 ml:22.5 g)治疗,其中患儿<4岁7 ml,4~7岁10 ml,>7岁15 ml,tid。两组患儿均连续治疗3个月,随访半年评估疗效。

1.4 观察指标

采用流式细胞仪测定T淋巴细胞亚群CD4⁺、CD8⁺水平和CD4⁺/CD8⁺值评估患儿的细胞免疫功能;采用免疫比浊法测定免疫球蛋白(Ig)G、IgA、IgM水平评估患儿的体液免疫功能。

1.5 疗效评价标准

显效:无呼吸道感染发生或仅发生1次;有效:呼吸道感染发作频率较前减少或临床症状较前减轻或病程较前缩短;无效:呼吸道感染发作频率、临床症状或病程较前无明显变化或反而加重。总有效率=(显效例数+有效例数)/总例数×100%。

1.6 统计学方法

采用SPSS 18.0软件对数据进行统计学分析。计量资料以 $\bar{x} \pm s$ 表示,采用 t 检验;计数资料以%表示,采用 χ^2 检验。 $P < 0.05$ 为差异有统计学意义。

2 结果

2.1 两组患儿治疗前后细胞免疫水平比较

治疗前,两组患儿CD4⁺、CD8⁺水平和CD4⁺/CD8⁺值比较,差异无统计学意义($P > 0.05$)。治疗后,观察组患儿CD4⁺水平和CD4⁺/CD8⁺值明显升高,且明显高于对照组,CD8⁺水平明显降低,且低于对照组,差异均有统计学意义($P < 0.05$)。两组患儿治疗前后细胞免疫水平比较见表2。

表2 两组患儿治疗前后细胞免疫水平比较($\bar{x} \pm s$)

Tab 2 Comparison of cellular immunity level between 2 groups before and after treatment($\bar{x} \pm s$)

组别	<i>n</i>	时期	CD4 ⁺ , %	CD8 ⁺ , %	CD4 ⁺ /CD8 ⁺
观察组	55	治疗前	34.07 ± 3.42	32.67 ± 3.26	1.04 ± 0.23
		治疗后	40.27 ± 4.05**	28.08 ± 2.95**	1.43 ± 0.25**
对照组	55	治疗前	33.92 ± 3.37	32.85 ± 3.34	1.03 ± 0.21
		治疗后	34.25 ± 3.72	32.17 ± 3.46	1.06 ± 0.24

注:与治疗前比较,* $P < 0.05$;与对照组比较,** $P < 0.05$

Note: vs. before treatment, * $P < 0.05$; vs. control group, ** $P < 0.05$

2.2 两组患儿治疗前后体液免疫水平比较

治疗前,两组患儿IgG、IgA、IgM水平比较,差异无统计学意义($P > 0.05$)。治疗后,观察组患儿IgG、IgA、IgM水平均较前明显升高,且明显高于对照组,差异均有统计学意义($P < 0.05$ 或 $P < 0.01$)。两组患儿治疗前后体液免疫水平比较见表3。

2.3 两组患儿临床疗效比较

观察组患儿临床总有效率明显高于对照组(92.73% vs. 78.18%),差异有统计学意义($P < 0.05$)。两组患儿临床疗效比较见表4。

3 讨论

RRI病情常反复发作,治愈较困难,给患儿及家庭带来巨大的痛苦和经济负担。目前,临床以常规的抗感染、抗病毒、退热及止咳化痰等对RRI患儿进行治疗,虽然具有一定的疗效,但治疗后复发率较高^[5]。RRI患儿病情复发的机制较复杂,

表3 两组患儿治疗前后体液免疫水平比较(g/L, $\bar{x} \pm s$)

Tab 3 Comparison of humoral immunity levels between 2 groups before and after treatment(g/L, $\bar{x} \pm s$)

组别	<i>n</i>	时期	IgG	IgA	IgM
观察组	55	治疗前	6.12 ± 1.07	0.97 ± 0.19	1.09 ± 0.21
		治疗后	8.45 ± 1.71**	1.32 ± 0.25**	1.34 ± 0.25**
对照组	55	治疗前	6.08 ± 1.15	1.02 ± 0.18	1.11 ± 0.19
		治疗后	7.52 ± 1.36	1.19 ± 0.23	1.20 ± 0.23

注:与治疗前比较,* $P < 0.05$;与对照组比较,** $P < 0.05$

Note: vs. before treatment, * $P < 0.05$; vs. control group, ** $P < 0.05$

表4 两组患儿临床疗效比较[例(%)]

Tab 4 Comparison of clinical efficacy between 2 groups [case(%)]

组别	<i>n</i>	显效	有效	无效	总有效
观察组	55	32(58.18)	19(34.55)	4(7.27)	51(92.73)*
对照组	55	27(49.09)	16(29.09)	12(21.82)	43(78.18)

注:与对照组比较,* $P < 0.05$

Note: vs. control group, * $P < 0.05$

但患儿的免疫功能低下是造成病情反复发作的重要原因,约50%患儿出现T淋巴细胞功能低下,约60%患儿出现IgG、IgA、IgM水平下降^[6-7]。因此,增强RRI患儿的细胞免疫和体液免疫功能可能会提高RRI患儿的治疗效果,减少其复发率。

羧甲淀粉钠是一种多糖类的内源性的免疫功能增强剂,其作用机制主要是通过激活单核巨噬细胞产生吞噬,刺激T淋巴细胞促进其成熟分化,增强细胞免疫功能^[8];刺激B淋巴细胞,提高免疫球蛋白水平,增强体液免疫功能;激活补体系统产生免疫调节作用,从而提高机体免疫力^[9-10]。李静等^[11]研究发现,羧甲淀粉钠治疗RRI患儿疗效较好,既可缩短治疗时间,减轻临床症状,还可提高患儿免疫力,降低其复发率。本研究结果显示,治疗3个月后,观察组患儿临床总有效率明显高于对照组,同时观察组患儿CD4⁺、IgG、IgA、IgM水平和CD4⁺/CD8⁺比值较前明显上升,CD8⁺水平较前明显下降,而对照组患儿治疗前后上述指标均无明显变化。提示羧甲淀粉钠治疗RRI患儿的疗效较确切,能纠正外周血T淋巴细胞亚群紊乱,提高IgG、IgA和IgM水平,从而明显改善患儿的细胞免疫及体液免疫功能。

综上所述,羧甲淀粉钠治疗RRI患儿的疗效较确切,能明显改善患儿的细胞免疫及体液免疫功能。但本研究病例收集较少,且未记录治疗过程中的不良反应发生情况,在以后的研究中应注意统计结果的全面性。

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利伐沙班治疗肺栓塞患者的临床观察及相关护理干预

刘素霞*,许亚平,蔡静,郭丽萍*(河北医科大学第二医院,石家庄 050000)

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摘要 目的:观察利伐沙班治疗肺栓塞患者的疗效、安全性。方法:选取肺栓塞患者100例,按随机数字表法分为观察组和对照组,各50例。两组患者均采用护理干预进行康复治疗,并于尿激酶20 000 IU/(kg·h),ivgtt,2 h溶栓治疗。观察组患者给予利伐沙班15 mg, bid,连续治疗3周,3周后改为20 mg, qd。对照组患者给予低分子肝素钙1 mg/kg, bid,联合华法林钠5 mg, qd,联合给药 ≥ 5 d后,至国际标准化比值(INR)为2~3时,停用低分子肝素钙,单独口服华法林钠。两组疗程均为3个月。观察两组患者临床疗效及治疗前后氧分压(PaO₂)、二氧化碳分压(PaCO₂)、D-二聚体水平,并记录咳嗽、胸痛、呼吸困难等临床症状缓解情况及不良反应发生率。结果:观察组患者有效率(90.0%)显著高于对照组(74.0%),差异有统计学意义($P < 0.05$)。治疗后,两组患者PaO₂、PaCO₂水平明显高于治疗前,D-二聚体水平明显低于治疗前,且观察组变化幅度明显大于对照组,差异有统计学意义($P < 0.05$)。观察组患者咳嗽、胸痛、呼吸困难等临床症状缓解率明显高于对照组,差异有统计学意义($P < 0.05$)。观察组患者不良反应发生率(12.0%)显著低于对照组(30.0%),差异有统计学意义($P < 0.05$)。结论:利伐沙班辅以合理的护理干预能显著提高肺栓塞患者的临床疗效,且不良反应发生率低。

关键词 利伐沙班;肺栓塞;低分子肝素;华法林钠;护理干预

Clinical Observation and Nursing Intervention of Rivaroxaban in the Treatment of Pulmonary Embolism

LIU Suxia, XU Yaping, CAI Jing, GUO Liping (The Second Hospital of Hebei Medical University, Shijiazhuang 050000, China)

ABSTRACT OBJECTIVE: To observe clinical efficacy and safety of rivaroxaban in the treatment of pulmonary embolism. METHODS: 100 patients with pulmonary embolism were selected and randomly divided into observation group and control group, with 50 cases in each group. Both groups were given nursing intervention for rehabilitation. Observation group was treated with rivaroxaban 15 mg, bid, for consecutive 3 weeks, 3 weeks later adjusting to 20 mg, qd; control group was given low molecular weight heparin 1 mg/kg, bid, combined with warfarin sodium 5 mg, qd, for more than 5 days, stopped taking low molecular weight heparin until the INR reached the target 2-3 and given warfarin alone orally. Treatment course of 2 groups lasted for 3 months. Clinical efficacy of 2 groups were observed, and PaO₂, PaCO₂ and D-dimer levels were observed in 2 groups before and after treatment; the improvement of clinical symptoms as cough, pectoralgia, dyspnea, and the incidence of ADR were recorded in 2 groups. RESULTS: The total effective rate of observation group (90.0%) was significantly higher than that of control group (74.0%), with statistical significance ($P < 0.05$). After treatment, PaO₂, PaCO₂ and D-dimer levels of 2 groups were increased significantly, compared with before treatment; the observation group was higher than the control group, with statistical significance ($P < 0.05$). The remission rate of clinical symptoms as cough, pectoralgia, dyspnea in observation group was significantly higher than in control group, with statistical significance ($P < 0.05$). The incidence of ADR in observation group (12.0%) was significantly lower than in control group (30.0%), with statistical significance ($P < 0.05$). CONCLUSIONS: Rivaroxaban supplemented by reasonable nursing intervention can effectively improve clinical efficacy of patients with pulmonary embolism with low incidence of ADR.

KEYWORDS Rivaroxaban; Pulmonary embolism; Low molecular weight heparin; Warfarin sodium; Nursing intervention

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(编辑:黄欢)

*副主任护师。研究方向:危重症护理。电话:0311-66007410。

E-mail:LSX19660408@163.com

#通信作者:主任医师,硕士。研究方向:呼吸内科。电话:0311-66007410。E-mail:2837088219@qq.com