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小儿病毒性腹泻的临床预后及危险因素分析

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摘要 目的:探讨小儿病毒性腹泻的临床预后及危险因素。**方法:**纳入病例是2018年1月至2019年12月本院收治的200例小儿病毒性腹泻患者,回顾性分析其临床资料,分析小儿病毒性腹泻的临床特点。根据疾病痊愈情况分组,将128例痊愈患者作为实验组,72例未痊愈患者作为参照组,Logistic分析小儿病毒性腹泻患者疾病痊愈的危险因素。**结果:**200例患者中,HAdV感染121例,占60.50%;HAD感染36例,占18.00%;HUCV感染15例,占7.50%;HRV感染10例,占5.00%;混合感染18例,占9.00%。HAdV类型病毒性腹泻患者临床症状以呼吸道症状、发热、呕吐为主;HAD类型病毒性腹泻患者临床症状以发热、呕吐为主;HUCV类型病毒性腹泻患者临床症状以呼吸道症状、发热为主;HRV类型病毒性腹泻患者临床症状以发热、呕吐为主;混合感染类型病毒性腹泻患者临床症状以呼吸道症状、发热、呕吐为主。年龄、中枢神经损害、心肌损害、近1w是否接触过腹泻是小儿病毒性腹泻患者疾病痊愈的危险因素, $P<0.05$ 。**结论:**小儿病毒性腹泻不同感染类型,临床症状各不相同。小儿病毒性腹泻患者预后与年龄、中枢神经损害、心肌损害、近1w是否接触过腹泻有着极为密切的联系,应当引起临床重视与关注。

关键词:小儿;病毒性腹泻;临床特征;病例对照研究;危险因素

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Clinical Prognosis and Risk Factors of Viral Diarrhea in Children

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ABSTRACT Objective: To analyze the clinical prognosis and risk factors of viral diarrhea in children. **Methodes:** 200 cases of pediatric viral diarrhea admitted to our hospital from January 2018 to December 2019 were retrospectively analyzed. The clinical characteristics of pediatric viral diarrhea were analyzed. According to the disease recovery group, 128 patients with recovery were used as the experimental group, and 72 patients without recovery were used as the reference group. Logistic analysis was used to analyze the risk factors for the recovery of children with viral diarrhea. **Resultes:** Of the 200 patients, 121 were infected with HAdV, accounting for 60.50%; 36 were infected with HAD, accounting for 18.00%; 15 were infected with HUCV, accounting for 7.50%; 10 were infected with HRV, accounting for 5.00%; 18 were infected with infection, accounting for 9.00%. The clinical symptoms of patients with HAdV type viral diarrhea are mainly respiratory symptoms, fever and vomiting; the clinical symptoms of patients with HAD type viral diarrhea are mainly fever and vomiting; the clinical symptoms of patients with HUCV type viral diarrhea are mainly respiratory symptoms and fever; HRV The clinical symptoms of patients with type viral diarrhea are mainly fever and vomiting; the clinical symptoms of patients with mixed infection type are mainly respiratory symptoms, fever and vomiting. Age, CNS damage, myocardial damage, and whether diarrhea has been contacted in the past 1 week are risk factors for disease recovery in children with viral diarrhea, $P<0.05$. **Conclusion:** Different types of viral diarrhea in children have different clinical symptoms. The prognosis of children with viral diarrhea is closely related to age, central nervous system damage, myocardial damage, and whether or not diarrhea has been exposed for nearly 1 week. It should cause clinical attention and attention.

Key words: Children; Viral diarrhea; Clinical features; Case-control study; Risk factors

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前言

病毒性腹泻是一种儿科常见病,也是感染性腹泻中最为常见的一种类型,是目前全球高度关注的一项公共卫生问题^[1,2]。据调查^[3]:病毒性腹泻是导致全球儿童死亡的重要原因之一,每年由于腹泻死亡的5岁以下儿童多达76万左右。儿童由于年

龄较小、抵抗能力较差,患有病毒性腹泻后极易发生脱水、电解质紊乱等,病情严重的患者甚至会死亡^[4]。因此加强对小儿病毒性腹泻患者临床特征以及预后影响因素分析极为重要。基于以上背景,本文纳入2018年1月至2019年12月本院收治的200例小儿病毒性腹泻患者研究,具体如下。

1 资料与方法

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1.1 一般资料

2018年1月至2019年12月为研究时段,医院伦理委员会已批准本研究,纳入病例是本院收治的200例小儿病毒性腹泻患者。女性85例、男性115例;年龄在6个月-3岁,年龄均值为 (1.52 ± 0.12) 岁;病程在1-6 d,病程均值为 (3.52 ± 1.11) d。

纳入标准:①均符合《儿童腹泻病诊断治疗原则的专家共识》^[5]中对“病毒性腹泻”诊断标准。②发病时间在7 d之内。③每日排便次数在3次以上。④年龄在60个月以下。⑤均存在不同程度蛋花样或稀水样便。⑥患者家属均已签署与本项研究有关的知情同意书。

排除标准:①脓血性大便者。②合并遗传性、先天性疾病者。③细菌性肠炎者。④中途退出本项研究者。⑤临床资料不真实、不完整者。⑥合并心力衰竭、呼吸衰竭者。⑦合并内分泌、免疫、血液系统疾病者。

1.2 方法

标本采集方法:所有患者在入院之后均采集粪便标本5 mL,以ELISA(酶联免疫吸附法)进行HRV(轮状病毒 Human rotavirus)定性检测,HUCV(杯状病毒 Human caliciviruses)、HAstV(星状病毒 Astrovirus)、EADV(肠道腺病毒 enteric adenoviruses)以RT-PCR/PCR(聚合酶链反应)方法检测核酸,试剂均由北京百奥莱博科技有限公司提供,操作按说明书进行。

资料收集:收集所有患者临床资料,通过问卷调查的方式开展,具体包括年龄、性别、病程、体重、及时就诊率、有无肝损

害、有无中枢神经损害、有无心肌损害、婴幼儿/喂养者餐前是否洗手、近1 w是否接触过腹泻患者、近1 w是否服用抗生素等。根据疾病痊愈情况分组,将128例痊愈患者作为实验组,72例未痊愈患者作为参照组。

1.3 统计学方法

本次研究所有检验数据运用SPSS 26.0进行统计学分析,其中计数资料以 χ^2 检验,以“ $n/(%)$ ”表示;计量资料,组间对比以独立样本t检验为主,以“ $\bar{x} \pm s$ ”表示,Logistic分析小儿病毒性腹泻患者疾病痊愈的危险因素, $P < 0.05$,表明差异有统计学意义。

2 结果

2.1 不同类型病毒性腹泻患者临床特点

200例患者中,HAstV感染121例,占60.50%(121/200);HAD感染36例,占18.00%(36/200);HUCV感染15例,占7.50%(15/200);HRV感染10例,占5.00%(10/200);混合感染18例,占9.00%(18/200)。HAstV类型病毒性腹泻患者临床症状以呼吸道症状、发热、呕吐为主;HAD类型病毒性腹泻患者临床症状以发热、呕吐为主;HUCV类型病毒性腹泻患者临床症状以呼吸道症状、发热为主;HRV类型病毒性腹泻患者临床症状以发热、呕吐为主;混合感染类型病毒性腹泻患者临床症状以呼吸道症状、发热、呕吐为主,详见表1。

表1 不同类型病毒性腹泻患者临床特点[n/(%)]

Table 1 Clinical characteristics of different types of viral diarrhea [n/(%)]

Types of	Neurological symptoms	Respiratory symptoms	Fever	Vomit
HAstV(n=121)	1(0.83)	62(51.24)	70(57.85)	99(81.82)
HAD(n=36)	0(0.00)	7(19.44)	18(50.00)	20(55.56)
HUCV(n=15)	0(0.00)	5(33.33)	7(46.67)	4(26.67)
HRV(n=10)	0(0.00)	3(30.00)	6(60.00)	6(60.00)
Mixed infection(n=18)	2(11.11)	10(55.56)	9(50.00)	11(61.11)

2.2 对比两组一般资料

实验组、参照组性别比较差异无统计学意义($P > 0.05$);实

验组年龄以及体重明显大于参照组($P < 0.05$),病程明显短于参照组($P < 0.05$),见表2。

表2 对比两组一般资料

Table 2 Comparison of two sets of general information

Groups	Gender(n)		Age(year old)	Course of disease(d)	Body weight(kg)
	Male	Female			
test group(n=128)	113(88.28)	15(11.72)	2.06 ± 0.13	3.65 ± 0.25	15.26 ± 2.31
Reference group(n=72)	57(79.17)	15(20.83)	0.94 ± 0.05	5.84 ± 0.46	10.01 ± 1.25
χ^2/t	2.5078		70.1790	43.6553	17.8572
P	0.1133		0.0000	0.0000	0.0000

2.3 单因素分析小儿病毒性腹泻患者疾病痊愈的危险因素

单因素分析:有无中枢神经损害、有无心肌损害、婴幼儿/喂养者餐前是否洗手、近1 w是否接触过腹泻患者是小儿病毒性腹泻患者疾病痊愈的危险因素($P < 0.05$),见表3。

2.4 多因素分析小儿病毒性腹泻患者疾病痊愈的危险因素

多因素分析:年龄、中枢神经损害、心肌损害、近1 w是否接触过腹泻是小儿病毒性腹泻患者疾病痊愈的危险因素($P < 0.05$),见表3。

表 3 单因素分析小儿病毒性腹泻患者疾病痊愈的危险因素[n/(%)]

Table 3 Single factor analysis of risk factors for recovery of disease in children with viral diarrhea [n/(%)]

Groups		Test group(n=128)	Reference group(n=72)	χ^2	P
Timely visit rate		101(78.91)	55(76.39)	0.1702	0.6800
With or without liver damage	Have	82(64.06)	60(83.33)	1.4017	0.2364
	no	46(35.94)	12(16.67)		
With or without central nerve damage	Have	42(32.81)	60(83.33)	47.0638	0.0000
	no	86(67.19)	12(16.67)		
With or without myocardial damage	Have	39(30.47)	58(85.56)	46.2818	0.0000
	no	89(69.53)	14(19.44)		
Whether infants / feeders wash their hands before meals	Have	110(85.94)	22(30.56)	62.9834	0.0000
	no	18(14.06)	50(69.44)		
Have you had contact with diarrhea patients in the last 1w	Have	91(71.09)	61(84.72)	4.6923	0.0303
	no	37(28.91)	11(15.27)		
Whether to take antibiotics for nearly 1w	Have	80(62.50)	50(69.44)	0.9768	0.3230
	no	48(37.50)	22(30.56)		

表 4 多因素分析小儿病毒性腹泻患者疾病痊愈的危险因素

Table 4 Multivariate analysis of risk factors for disease recovery in children with viral diarrhea

Factor	Wald	P	OR	95%CI
Age	4.611	0.004	1.401	1.091-1.455
Course of disease	3.251	0.063	1.325	1.025-1.251
Body weight	3.249	0.071	1.318	1.038-1.268
Central nervous system damage	4.521	0.002	1.411	1.025-1.475
Myocardial damage	4.281	0.003	1.425	1.052-1.485
Whether infants / feeders wash Their hands before meals	3.865	0.075	1.318	1.041-1.308
Have you ever had diarrhea in the Last 1w	4.115	0.001	1.408	1.042-1.458

3 讨论

腹泻是影响世界人口健康最常见的一种疾病,病毒、寄生虫以及细菌等均会引起腹泻^[6,7]。据不完全统计^[8,9]:腹泻患者中将近 50%的患者为病毒性腹泻。引发病毒性腹泻的病毒有 HAsV、HAD、HUCV、HRV 等,随着我国抗生素的广泛使用,由于细菌引发的腹泻,病情得到了有效控制,而由于病毒引发的腹泻则无特效的治疗药物,病情较重的患者,极易发生脱水等并发症,对其生命安全构成一定威胁^[10-12]。

从本次研究可知:HAsV、HAD、HUCV、HRV 以及混合感染腹泻患者临床症状以呼吸道症状、发热、呕吐为主,神经系统症状相对少见。本研究将可能影响小儿病毒性腹泻患者预后的 11 项危险因素,作为自变量、单因素以及 Logistic 分析:年龄、中枢神经损害、心肌损害、近 1w 是否接触过腹泻是小儿病毒性腹泻患者疾病痊愈的危险因素。儿童由于年龄较小,机体脏器、组织功能发育尚不完全,对外界致病菌的抵抗能力、免疫功能较差,更容易受到病毒的侵袭,年龄较小也是导致患者预后较差的原因之一^[13,14]。病毒性腹泻如果治疗不及时或方法不当,随着疾病的发展,极易引发心肌损害、中枢神经损害以及致病

性肠胃炎等^[15,16]。对于合并中枢神经损害、心肌损害的患者,病情普遍较重,治疗难度更大,预后普遍较差^[17,18]。小儿由于抵抗能力较差,如果接触了患有病毒性腹泻的儿童或成人,均会诱发病毒性腹泻或进一步加重原发病^[19]。为进一步预防小儿病毒性腹泻的发生,特提出以下几点预防对策:① 健康宣教:临床应加强儿童、儿童家属健康教育,通过多途径、多样化的健康教育,督促儿童、家属改变自身不良的卫生、饮食习惯,饭前便后洗手,对于预防病毒性腹泻的发生意义重大^[20,21]。② 隔绝传染源:在病毒性腹泻高发季节,一旦发现病毒性腹泻的患者,应及时进行小范围的隔离,对于患者排出粪便的地方,及时进行消毒处理,同时处理可能受到污染鱼类、家禽等^[22,23]。儿童所用的奶具、衣服等均应进行彻底消毒,鼓励儿童经常洗手,尽可能切断传染源与患儿接触的途径^[24,25]。③ 增强免疫功能:对于母乳喂养的患儿,如果母亲感到有任何不适,均应及时停止母乳喂养^[26]。对于已经断奶的儿童,鼓励其加强运动锻炼,多吃水果、蔬菜,改善全身血液循环,增强抵抗力^[27]。④ 接种疫苗:疫苗接种是目前临床预防病毒性腹泻最有效的手段之一,目前主要接种的疫苗主要是基因疫苗^[28,29]。⑤ 及时就医:家属一旦发现患儿出现腹泻症状,不可自行在家中处理,应及时将患儿送往医院

就诊,防止患者病情延误^[30]。

综上所述:呼吸道症状、发热、呕吐是小儿病毒性腹泻患者最常见的临床症状。小儿病毒性腹泻患者预后与年龄、中枢神经损害、心肌损害、近1w是否接触过腹泻有关,临床医师应根据患者具体情况,予以针对性治疗,最大限度改善患者预后。

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