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非药物治疗极低出生体重儿喂养不耐受的临床观察*

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摘要 目的:将非药物性干预措施与传统药物方法治疗极低出生体重儿喂养不耐受的临床疗效进行观察比较。**方法:**选取哈尔滨医科大学附属第二医院 2011 年 1 月至 2013 年 4 月出生的喂养不耐受极低出生体重儿 110 例。按入院顺序随机分为药物治疗组(MED)55 例、非药物治疗组(NON-MED)55 例。药物治疗组采用红霉素;非药物治疗组采用腹部按摩法与非营养性吸吮。**结果:**两组患儿经治疗后,MED 组腹胀消失天数(4.4 ± 0.5)、呕吐天数(2.2 ± 0.5)、每日呕吐次数(3.5 ± 0.8)、胃潴留量占每日喂养量(18.3 ± 0.8)、达全肠道喂养天数(8.2 ± 0.7);NON-MED 组腹胀消失天数(3.7 ± 0.1)、呕吐天数(1.9 ± 0.6)、每日呕吐次数(2.8 ± 0.1)、胃潴留量占每日喂养量(12.6 ± 0.4)、达全肠道喂养天数(6.1 ± 0.3)。各项治疗指标的对比中,差异均有统计学意义($P < 0.05$)。MED 组治疗有效率 76.4%;NON-MED 组治疗有效率 83.6%。**结论:**非药物性干预措施可有效改善极低出生体重儿喂养不耐受。

关键词:极低出生体重儿;喂养不耐受;腹部按摩;非营养性吸吮

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Clinical Observation of Non Drug Treatment in VLBWI with Feeding Intolerance*

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ABSTRACT Objective: The clinical efficacy of very low birth weight infants with feeding intolerance was observed and compared which respectively adopted non drug treatment and traditional drug method. **Methods:** 110 infants with very low birth weight and with feeding intolerance were selected from those who were born in the Second Affiliated Hospital of Harbin Medical University from January 2011 to April 2013 April. They were randomly divided into treatment group (MED) of 55 cases and non drug treatment group (NON-MED) of 55cases. MED group adopted erythromycin and the NON-MED group adopted abdominal massage and non nutritive sucking. **Results:** The children in two groups were carefully treated. In MED group, bloating disappeared days (4.4 ± 0.5), vomiting days (2.2 ± 0.5), daily frequency of vomiting (3.5 ± 0.8), gastric retention accounts for daily feedings (18.3 ± 0.8), full enteral feeding days (8.2 ± 0.7), while in NON-MED group, bloating disappeared days (3.7 ± 0.1), vomiting days (1.9 ± 0.6), daily frequency of vomiting (2.8 ± 0.1), gastric retention accounts for daily feedings(12.6 ± 0.4), full enteral feeding days(6.1 ± 0.3). There was significant difference ($P < 0.05$) in every therapeutic index. The treatment efficiency of MED group is 76.4%, while the treatment efficiency of NON-MED group is 83.6%. **Conclusion:** Non drug treatment can effectively improve the feeding intolerance of infants with very low birth weight.

Key words: Very low birth weight infants; Feeding intolerance; Abdominal massage; Non nutritive sucking

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前言

极低出生体重儿(Very Low Birth Weight Infant, VLBWI)的喂养问题是目前困扰新生儿医生和患儿家长的主要难题^[1]。VLBWI 胎龄多为 28~32 周,此时期的新生儿吮吸能力差、食管下端括约肌发育不成熟、胃肠功能发育不完善,神经调节功能不成熟,其状态无法提供机体生长和发育所需的营养物质,极易发生喂养不耐受(Feeding Intolerance, FI)^[2-12]。因此,解决极低出生体重儿的喂养不耐受问题能够提高其存活率。

到目前为止,用于治疗极低出生体重儿的喂养不耐受的主

要措施有:采取禁食或限制奶量以被动等待患儿胃肠功能自动修复^[13];采用小剂量红霉素、多潘立酮等药物联合治疗,以促进动力药物加快胃排空、增强小肠动力,从而克服自身功能上的不完善^[14-16]。针对已有方法存在的不足,本文采用非药物措施干预治疗极低出生体重儿的喂养不耐受问题。

1 材料与方法

1.1 实验对象

选取哈尔滨医科大学附属第二医院 2011 年 1 月至 2013 年 4 月出生的喂养不耐受极低出生体重儿 110 例,喂养不耐受

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诊断标准:(1)每天呕吐次数大于等于3次;(2)连续3天奶量不增加或减少;(3)24小时胃潴留量超过所摄入总量的1/4或胃潴留量超过前次喂养量的1/3。研究对象入选标准:(1)胎龄在28~32周;(2)体重小于1500克;(3)符合喂养不耐受诊断标准;(4)无重度窒息、无需机械通气、无消化系统先天性畸形、

无重度感染。

按入院顺序将研究对象随机分为药物治疗组(MED)55例、非药物治疗组(NON-MED)55例。两组的性别比例、平均胎龄、平均出生重量如表1所示,在这三方面差异无统计学意义($P>0.05$)。

表1 两组患儿基本情况对比
Table 1 The basic information of children in two groups

Group	The number of cases		The average gestational age (Week)	The average birth weight(kg)
	Male	Femal		
MED group	29	26	30.2± 0.6	1.2± 0.2
NON-MED group	30	25	29.7± 0.9	1.1± 0.3
P Value	>0.05		>0.05	>0.05

1.2 方法

所有患儿均需给予常规的治疗和护理,放入预热的暖箱并维持恒定的适中温度、静脉营养、体位支持治疗、加强口服喂养。在这此基础上,MED组给予红霉素治疗;NON-MED组采用腹部按摩法与非营养性吸吮相结合的方法进行治疗。

1.2.1 药物治疗组 MED组极低出生体重儿在进行常规治疗和护理的同时,给予红霉素治疗喂养不耐受,剂量标准为10 mg/kg,每6 h 1次,持续2 d;然后4 mg/kg,每6 h 1次,持续5 d。

1.2.2 非药物治疗组 NON-MED组在常规治疗和护理的基础上,采用腹部按摩法与非营养性吸吮相结合的方法。用手掌沿顺时针方向轻柔地按摩腹部,以保证和肠的蠕动方向一致。要尽量放平手掌,注视患儿的脸,和患儿交流,每次15 min,每天2次。将安慰奶嘴放入患儿口中,奶嘴的头颈部狭窄处都要包含在患儿口中,使患儿吸吮时更舒适。每次吸吮10 min,24 h内4~6次,持续5 d。注意观察患儿吸吮过程中的病情、生命体征变化。

2 结果

观察记录两组患儿呕吐天数、每日呕吐次数、腹胀消失天数、胃潴留量占每日喂养量、全肠道喂养天数。治疗时间<7 d,奶瓶喂养后无腹胀、呕吐、大便通畅为有效;否则,视为无效。采用SPSS11.0统计软件进行对记录数据进行处理,采用检验统

计结果的有效性, $P<0.05$ 为差异有显著性。

两组患儿经治疗后,治疗各项主要指标对比情况如表2所示。其中,药物治疗组55例患儿呕吐天数为 2.2 ± 0.5 ,非药物治疗组55例患儿呕吐天数为 1.9 ± 0.6 ;药物治疗组每日呕吐次数 3.5 ± 0.8 ,非药物治疗组每日呕吐次数 2.8 ± 0.1 ;药物治疗组腹胀消失天数 4.4 ± 0.5 ,非药物治疗组腹胀消失天数 3.7 ± 0.1 ;药物治疗组胃潴留量占每日喂养量 18.3 ± 0.8 ,非药物治疗组胃潴留量占每日喂养量 12.6 ± 0.4 ;药物治疗组全肠道喂养天数 8.2 ± 0.7 ,非药物治疗组全肠道喂养天数 6.1 ± 0.3 。以上数据表明,非药物治疗组呕吐天数、腹胀消失天数和达全肠道喂养时间大大缩短,每日呕吐次数和胃潴留量占每日喂养量明显减少,各指标对比均具有统计学意义。

在治疗时间内,药物治疗组55例患儿共治愈42例,治疗有效率达76.4%;非药物治疗组55例患儿共治愈46例,治疗有效率达83.6%。两组治疗有效率对比如表3所示。

3 讨论

随着极低出生体重儿出生率的逐年增加,早产极低出生体重儿的喂养不耐受问题日渐突出。极低出生体重儿消化系统发育不完善、吸吮能力差,其状态不能为自身提供必需的营养,此阶段易导致喂养不耐受的发生^[7]。为提高极低出生体重儿的存

表2 两组患儿治疗情况对比
Table 2 The comparison of treatment results in two groups

Group	Number of cases	Vomiting days	Daily frequency of vomiting	Bloating disappeared days	Gastric retention accounts for daily feedings	Full enteral feeding days
MED	55	2.2± 0.5	3.5± 0.8	4.4± 0.5	18.3± 0.8	8.2± 0.7
NON-MED	55	1.9± 0.6	2.8± 0.1	3.7± 0.1	12.6± 0.4	6.1± 0.3
P Value		<0.05	<0.05	<0.05	<0.05	<0.05

表3 两组治疗有效率对比
Table 3 The efficiency of treatment in two groups

Group	Number of cases	Number of valid cases	Number of invalid cases	Efficiency
MED group	55	42	13	76.4%
NON-MED group	55	46	9	83.6%

活率和存活后的生存质量,国内外学者进行着不懈的努力。

本文对两组极低出生体重儿分别采取非药物性治疗措施和传统药物治疗方法,以治疗 7 天内为疗程,首先从呕吐天数、每日呕吐次数、腹胀消失天数、胃潴留量占每日喂养量、全肠道喂养天数五个治疗指标上进行临床疗效对比。非药物治疗组患儿的呕吐天数明显缩短、每日呕吐次数和腹胀消失天数也少于药物治疗组、每日胃潴留量较低、达全肠道喂养时间明显早于药物治疗组,两组患儿的治疗效果在这五个指标对比上具有显著性差异。然后从治疗有效和治疗无效两方面对比,药物治疗组的有效率为 76.4%,而非药物治疗组的有效率达到了 83.6%。

2012 年,Brigit M. Carter 选取胎龄 <32 周早产儿进行治疗,给予红霉素 10 mg/kg,每 6 h 1 次,治疗组达全肠道喂养时间明显缩短,但幽门狭窄的风险增加了 4~10 倍,而且极低出生体重儿在生后早期使用红霉素,其风险更大还是更小尚不清楚^[9]。Tulin 也于 2013 年的研究结果中报道红霉素是目前改善早产儿胃肠动力的理想药物,通过与胃黏膜的胃动素受体结合,可促进肠胃蠕动,加速胃排空。但由于红霉素是由肝脏代谢,可能会引起肠道菌群的失衡。此外,红霉素有一定的刺激性,静脉滴注时容易发生静脉炎而且不能有效促进患儿消化系统的发育成熟,具有一定的毒副作用^[10]。然而,规律的、适度的腹部按摩不但可以使患儿和操作者之间有情感上的交流,还可以通过机械性的刺激方式,使消化器官分泌激素,促进胃肠的蠕动,增加排便次数和拍变量,降低腹胀、胃内潴留的发生率,改善喂养量不增加和增加困难的情况^[11]。此外,非营养性吸吮能刺激迷走神经兴奋,使胃肠激素水平,如胃泌素、胰岛素水平增高,生长抑素水平下降。本文将非药物性干预措施有机结合起来治疗极低出生体重儿喂养不耐受,既能达到降低极低出生体重儿喂养不耐受的发生、促进胃肠功能发育、加快吸吮反射成熟,又避免了药物性治疗带来的副作用^[12]。

本文采用非药物性干预措施治疗极低出生体重儿的喂养不耐受、缩短了极低出生体重儿达全肠道喂养时间和喂养不耐受的治疗有效率。其方法在系统的培训之后,可应用于极低出生体重儿的临床日常诊治和护理中。使用简便、不需要经济投入,患儿家长可以用该方法来配合治疗,大幅降低医疗成本,有效地提高极低出生体重儿的成活率和生存质量。此方法简单易行、便于推广。

极低出生体重儿喂养不耐受病因复杂,本研究样本量相对较小,未进行患儿愈后的随访,且尚未考虑患儿家长受教育程度等因素。在今后的研究中,需扩大样本量,多因素综合分析,进一步研究极低出生体重儿喂养不耐受的治疗方法。

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