

无创正压通气治疗慢性阻塞性肺病的临床观察及护理效应*

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摘要 目的 探讨无创正压通气治疗慢性阻塞性肺病的临床疗效和护理效应。方法 本科收治的慢性阻塞性肺病患者 90 例,随机分为对照组和观察组。对照组给予常规治疗及常规专业护理措施。在对照组的治疗方式的基础上,应用无创性呼吸机治疗,并在进行无创正压通气及常规专业护理措施的同时,患者行综合护理干预措施。结果 治疗后,观察组心率、呼吸频率与对照组相比下降更明显,差异显著($P<0.01$)。治疗后,观察组动脉血气指标与对照组相比改善更明显,差异具有显著性($P<0.01$)。观察组住院时间少于对照组,差异具有显著性($P<0.01$)。结论 采用无创正压通气治疗慢性阻塞性肺病患者疗效可靠,辅以综合护理干预措施,能够有效的促进患者恢复。

关键词 无创正压通气;慢性阻塞性肺病;护理;心率

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Curative Effect Observation and Nursing of Noninvasive Positive Pressure Ventilation Treatment of Chronic Obstructive Pulmonary Disease

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ABSTRACT Objective: To explore the nursing method and noninvasive positive pressure ventilation in the treatment of chronic obstructive pulmonary disease clinical curative effect. **Method:** The hospital of patients with chronic obstructive pulmonary disease in 90 cases, were randomly divided into control group and observation group. The control group was given routine treatment and routine nursing measures. In the control group treatment basis, the application of noninvasive ventilation in the treatment; and in noninvasive positive pressure ventilation and conventional nursing measures at the same time, were treated with comprehensive nursing intervention measures. **Results:** After treatment, the observation group of heart rate, respiratory rate compared with the control group decreased more significantly, significant difference ($P<0.01$). After treatment, the observation group arterial blood gas index compared with the control group improved more obviously, the difference was significant ($P<0.01$). The observation group hospitalization time was less than the control group, the difference was significant ($P<0.01$). **Conclusion:** Noninvasive positive pressure ventilation in the treatment of patients with chronic obstructive pulmonary disease curative effect is reliable, supplemented by a comprehensive nursing intervention measures, can effectively promote the patients.

Key words: Noninvasive positive pressure ventilation; Chronic obstructive pulmonary disease; Nursing; Heart rate

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慢性阻塞性肺病发病率和死亡率逐年增加^[1],是一种具有气流受限特征的肺部疾病^[2],其确切病因目前还不十分清楚^[3-5],但认为与肺部对有害气体或有害颗粒的异常炎症反应有关^[6]。本研究中,我们采用无创正压通气治疗慢性阻塞性肺病患者,取得较佳疗效,现报道如下。

1 对象和方法

1.1 研究对象

选择 2009 年 10-2011 年 -10 月本科收治的慢性阻塞性肺病患者 90 例(男 51 例 / 女 39 例),年龄 50~76 岁,按就诊顺序随机分成观察组和对照组两组。观察组 45 例(男 26 例 / 女 19 例),平均年龄(62.15 ± 7.50)岁;对照组 45 例(男 25 例 / 女 20 例),平均年龄(62.75 ± 7.80)岁。两组慢性阻塞性肺病患者性别

比、年龄等一般资料差异无统计学意义($P>0.05$),具有可比性。

1.2 方法

①对照组:慢性阻塞性肺病患者均给予常规的抗感染、化痰、平喘、通畅呼吸道、糖皮质激素、纠正酸碱失衡等^[7-10]综合治疗,采用常规专业护理措施^[11-12]。②观察组:在对照组的治疗方式的基础上,应用无创性呼吸机治疗,参数设置:通气模式 S/T,呼吸频率 12~16 次/min,IPAP 12~20 cmH₂O (1 cmH₂O=0.098 kPa),保持患者可以耐受而血氧饱和度能维持在 90%以上水平为宜,氧流量 2~5 L/min,潮气量 7~10 ml/kg,每次通气 2~3 h,3 次/d,疗程 5~10 d。在进行无创正压通气及常规专业护理措施的同时,患者行综合护理干预措施:①入院时伴有焦虑、悲观等负面情绪的慢性阻塞性肺病患者给予心理护理。②根据慢性阻塞性肺病患者面部大小的实际情况选择面罩,减轻操作难度。③护理人员应密切注意慢性阻塞性肺病患者的咳嗽、咳痰情况,鼓励患者进行有效的咳嗽、咳痰,帮助患者拍背。④观察慢性阻塞性肺病患者病情变化,密切观察患者生命体征,并观察

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患者呼吸频率、节律和血氧饱和度变化。如慢性阻塞性肺病患者意识障碍减轻、血压平稳、心率正常、呼吸节律平稳则治疗有效。如慢性阻塞性肺病患者呼吸困难不但没有消除,相反皮肤紫绀、意识障碍加深,则立即通知医生进行有创通气治疗。

1.3 疗效评价

观察两组慢性阻塞性肺病患者治疗前后的临床症状以。动脉血气分析两组慢性阻塞性肺病患者 PH、PaCO₂、PaO₂ 数值变化情况。监测两组慢性阻塞性肺病患者气管插管率以及治疗成功率。

1.4 统计学方法

本组数据采用 SPSS 13.0 统计学软件进行分析处理。组间

比较采用 χ^2 检验或 t 检验。以 P<0.05 表示差异有显著意义。

2 结果

治疗后,两组患者心率、呼吸频率与治疗前相比有显著下降,差异具有显著性(P<0.01);治疗后,观察组心率、呼吸频率与对照组相比下降更明显,差异具有显著性(P<0.01),见表 1。治疗后,两组患者动脉血气指标与治疗前相比均有所改善,差异具有显著性(P<0.01);治疗后,观察组动脉血气指标与对照组相比改善更明显,差异具有显著性(P<0.01),见表 2。观察组住院时间少于对照组,差异具有显著性(P<0.01),见表 3。

表 1 两组生命体征的改变情况($\bar{x} \pm s$)
Table 1 The change of vital signs in two groups ($\bar{x} \pm s$)

Groups	n	Heart rate (ci / min)		Respiratory frequency (ci / min)	
		Before treatment	After treatment	Before treatment	After treatment
The control group	45	110.5± 9.2	93.3± 6.8*	28.9± 3.8	20.5± 3.7*
The observation group	45	111.7± 8.5	80.9± 6.5*	29.2± 4.0	16.5± 4.5*
t		0.643	8.843	0.365	4.606
P		>0.05	<0.01	>0.05	<0.01

Note: vs before treatment ,*P<0.01

表 2 两组动脉血气指标的变化情况($\bar{x} \pm s$)
Table 2 The two groups of arterial blood gas indexes($\bar{x} \pm s$)

Groups	The control group		The observation group	
	Before treatment	After treatment	Before treatment	After treatment
PH	7.26± 0.10	7.38± 0.09*	7.25± 0.11	7.44± 0.06**
PaO ₂	48.6± 3.7	68.5± 6.2*	48.5± 3.9	79.1± 7.1**
PaCO ₂	71.6± 5.7	60.5± 4.4*	72.0± 6.7	52.9± 7.3**

Note: vs before treatment ,*P<0.01 ,vs the control group #P<0.01

表 3 两组患者观察指标的比较
Table 3 Comparison of two groups of observation index

Groups	n	Length of time (d)	Tracheal intubation rate
The control group	45	19.0± 2.5	8(17.78)
The observation group	45	14.0± 3.5	5(11.11)
t or χ^2		7.798	0.809
P		<0.01	>0.05

3 讨论

慢性阻塞性肺病的主要特点是气流受限不完全可逆、呈进行性发展,最终将导致呼吸衰竭,而呼吸衰竭是导致患者疾病恶化甚至死亡的直接原因^[13]。龚益等^[14]调查上海城区 60 岁以上人群慢性阻塞性肺患病率的变化及因为,结果认为 2008-2009 年上海城区≥ 60 岁人群的慢性阻塞性肺患病率较 2003-2004 年明显升高,吸烟、年龄、儿童期肺部感染史仍是慢性阻塞性肺病的主要危险因素;人口老龄化可能是慢性阻塞

性肺患病率升高的因为之一。

慢性阻塞性肺病以往多采用气管插管或气管切开有创呼吸机治疗,给患者带来较大痛苦,患者不易接受。而仅仅使用呼吸兴奋剂等药物治疗慢性阻塞性肺病患者效果可能不佳,而且可能加重呼吸衰竭的症状。有效的无创正压通气治疗可在 1~2 h 使 PaCO₂ 降低,PH、PaO₂ 增高,呼吸困难程度减轻,降低气管插管率和病死率,成功率可达 80%~85%^[15-16]。冯小鹏等^[17]将入选的 80 例慢性阻塞性肺疾病急性加重期(acute exacerbation of chronic obstructive pulmonary disease AECOPD)患者(1 h pH

<7.34)随机分为治疗组(N)和对照组(C),分组对比双水平正压通气(Bi-level airway pressure ventilation, BiPAP)无创呼吸机机械通气治疗老年慢性阻塞性肺病(chronic obstructive pulmonary disease, COPD)合并 型呼吸衰竭的临床疗效,结果认为 AE-COPD 早期应用 NIPPV 可明显改善患者的通气,降低气管插管率和缩短住院时间。黄霞等^[18]评价机械通气治疗对慢性阻塞性肺疾病(COPD)患者红血球变化的影响,结果认为 COPD 患者行机械通气治疗后红细胞计数、血红蛋白、红细胞压积随时间增加明显降低,其变化影响预后,应尽早拔除气管插管,缩短有创机械通气时间,缩短 ICU 和总住院时间,有效改进治疗效果,降低治疗费用,是具有一定临床实用价值的治疗方案。

白忠秀等^[19]将 80 例慢性阻塞性肺疾病并呼吸衰竭患者随机分为护理干预组与非护理干预组各 40 例,探讨无创正压通气治疗慢性阻塞性肺疾病并呼吸衰竭护理干预的临床效果,结果认为对无创气道正压通气治疗慢性阻塞性肺病并呼吸衰竭患者的采取系统的护理干预措施很有必要。卢洪斌等^[20]认为加强严重慢性阻塞性肺病(COPD)病人围手术期护理有助于患者的术后康复。本研究中,我们在对照组使用常规的抗感染、化痰、平喘、通畅呼吸道、糖皮质激素、纠正酸碱失衡等综合治疗;并采用常规专业护理措施。观察组在对照组的治疗方式的基础上,应用无创性呼吸机治疗,并在进行无创正压通气及常规专业护理措施的同时,患者行综合护理干预措施。结果观察组心率、呼吸频率与对照组相比下降更明显,观察组动脉血气指标与对照组相比改善更明显,观察组住院时间少于对照组。提示采用无创正压通气治疗慢性阻塞性肺病患者疗效可靠,辅以综合护理干预措施,能够有效的促进患者恢复。

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