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鼻内镜术与鼻息肉摘除术对鼻窦炎合并鼻息肉患者的鼻腔通气功能、嗅觉功能和生活质量的影响 *

刘磊峰 江 枫[△] 邱海涛 李 飞 姚 俊

(广东医科大学附属第一医院耳鼻喉科 广东 湛江 524000)

摘要 目的:探讨鼻内镜术与鼻息肉摘除术对鼻窦炎合并鼻息肉患者的鼻腔通气功能、嗅觉功能和生活质量的影响。**方法:**选取2016年1月-2017年8月期间我院收治的94例鼻窦炎合并鼻息肉患者。根据数表法将患者随机分为对照组(n=47)与研究组(n=47),其中对照组患者行传统鼻息肉摘除术,研究组则行鼻内镜术。观察两组患者临床疗效、临床指标及并发症发生情况,比较两组患者术前、术后6个月鼻腔通气功能、嗅觉功能和生活质量评分。**结果:**研究组临床总有效率为91.49%(43/47),高于对照组的65.96%(31/47)($P<0.05$)。研究组患者手术时间、术后住院时间、术中出血量均低于对照组($P<0.05$)。两组患者术后6个月鼻腔通气功能、嗅觉功能评分均较术前降低,且研究组低于对照组($P<0.05$)。两组患者术后6个月躯体功能(PF)、躯体角色(RP)、躯体疼痛(BP)、总体健康(GH)、情感角色(RE)以及心理健康(MH)均较术前升高,且研究组高于对照组($P<0.05$)。研究组头晕、头痛、流脓涕、鼻塞、复发等并发症发生率均低于对照组($P<0.05$)。**结论:**鼻窦炎合并鼻息肉患者采用鼻内镜术治疗,疗效确切,可显著改善患者临床指标、生活质量,对患者鼻腔通气功能、嗅觉功能均有促进作用,且术后并发症少,值得临床推广。

关键词:鼻内镜术;鼻息肉摘除术;鼻窦炎;鼻息肉;鼻腔通气功能;嗅觉功能;生活质量

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Effect of Nasal Endoscopy and Nasal Polyps Removal on Nasal Ventilation, Olfactory Function and Quality of Life in Patients with Nasosinusitis with Nasal Polyps*

LIU Lei-feng, JIANG Feng[△], QIU Hai-tao, LI Fei, YAO Jun

(Department of E.N.T, Affiliated Hospital of Guangdong Medical University, Zhanjiang, Guangdong, 524000, China)

ABSTRACT Objective: To investigate the effect of nasal endoscopy and nasal polyps removal on nasal ventilation, olfactory function and quality of life in patients with nasosinusitis with nasal polyps. **Methods:** 94 cases of nasosinusitis with nasal polyps who were treated in our hospital from January 2016 to August 2017 were selected as the subjects. The patients were divided into the control group (n=47) and the study group (n=47) according to the random number table method, the control group were treated with traditional nasal polyps removal, and the study group were treated with nasal endoscopy. The clinical efficacy, clinical indexes and complications of the two groups were observed, the nasal ventilation, olfactory function and quality of life score were compared between the two groups before and 6 months after operation were compared. **Results:** The total effective rate of the study group was 91.49% (43/47), which was significantly higher than 65.96% (31/47) of the control group ($P<0.05$). The time of operation, the time of postoperative hospitalization and the amount of bleeding in the study group were all lower than those of the control group ($P<0.05$). The nasal ventilation and olfactory function scores 6 months after operation of the two groups were lower than those before treatment, and the study group was lower than that of the control group ($P<0.05$). Physical function (PF), role physical (RP), body pain (BP), general health (GH), emotional role (RE) and mental health (MH) 6 months after operation of the two groups were all higher than those before operation, and the study group was higher than that of the control group ($P<0.05$). The complication rates of dizziness, nasal, nasal obstruction, recurrence in the study group were all lower than those in the control group ($P<0.05$). **Conclusion:** Nasosinusitis with nasal polyps is treated with nasal endoscopy, the curative effect is accurate, it can significantly improve the clinical indicators and quality of life, promote nasal ventilation function and olfactory function, and has fewer postoperative complications, which is worthy of clinical promotion.

Key words: Nasal endoscopy; Nasal polyps removal; Nasosinusitis; Nasal polyps; Nasal ventilation; Olfactory function; Quality of life

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作者简介:刘磊峰(1982-),女,博士,主治医师,从事鼻腔鼻窦恶性肿瘤的外科治疗方面的研究, E-mail: qtdpvr@163.com

△ 通讯作者:江枫(1968-),男,本科,主任医师,从事头颈部恶性肿瘤的外科手术治疗方面的研究, E-mail: xbsobq@163.com

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前言

鼻窦炎合并鼻息肉是由一个或多个鼻窦发生炎症反应所致,属于临床耳鼻咽喉科较为常见的疾病之一^[1-3]。该病临床主要表现为流涕、鼻塞、面部疼痛以及嗅觉丧失等症状,虽然以上症状不足以威胁到患者生命安全,但该病病程较长,且病情易反复发作,严重影响了患者的生活质量^[4-6]。以往针对鼻窦炎合并鼻息肉患者,临床多采用传统鼻息肉摘除术进行治疗,但由于鼻腔内部复杂的解剖结构,导致传统鼻息肉摘除术效果不甚理想。近年来随着医学技术的不断发展,鼻内镜手术治疗因其具有手术视野清晰、术后创伤较小等优点渐渐被临床医师们所接受^[7,8]。然而目前有关鼻内镜术对鼻窦炎合并鼻息肉患者的鼻腔通气功能、嗅觉功能的影响的相关报道较为少见。鉴于此,本文通过研究鼻内镜术与鼻息肉摘除术对鼻窦炎合并鼻息肉患者的鼻腔通气功能、嗅觉功能和生活质量的影响,旨在为临床治疗鼻窦炎合并鼻息肉患者提供数据支撑,现报道如下。

1 资料与方法

1.1 一般资料

选取 2016 年 1 月 -2017 年 8 月期间我院收治的 94 例鼻窦炎合并鼻息肉患者。纳入标准:(1)所有患者均符合 2008 年《中华耳鼻咽喉科》^[9]中有关慢性鼻窦炎的相关诊断标准,并经鼻窦 CT 扫描确诊;(2)均有以下临床症状:鼻塞、头晕、头痛以及流脓涕等;(3)持续症状均超过 12 周;(4)具备手术适应症者;(5)患者及其家属均知情本研究,且签署同意书。排除标准:(1)伴有糖尿病、肾病、高血压、心脏病等慢性疾病者;(2)伴有精神障碍者;(3)既往有鼻内镜手术史者;(4)先天性无嗅觉或过敏性嗅觉丧失者。根据随机数字表法将患者分为对照组(n=47)与研究组(n=47),其中对照组男 25 例,女 22 例,年龄 16-65 岁,平均(42.28±3.58)岁;病程 4 个月 -11 年,平均(5.59±1.49)年;鼻窦炎分型分期:Ⅰ型 1 期 13 例,Ⅰ型 2 期 9 例,Ⅰ型 3 期 10 例,Ⅱ型 1 期 4 例,Ⅱ型 2 期 5 例,Ⅱ型 3 期 3 例,Ⅲ型 3 例。研究组男 23 例,女 24 例,年龄 17-63 岁,平均(43.78±4.01)岁;病程 6 个月 -11 年,平均(5.28±1.38)年;鼻窦炎分型分期:Ⅰ型 1 期 13 例,Ⅰ型 2 期 10 例,Ⅰ型 3 期 9 例,Ⅱ型 1 期 5 例,Ⅱ型 2 期 4 例,Ⅱ型 3 期 4 例,Ⅲ型 2 例。两组患者一般资料比较无差异(P>0.05),提示组间可比。本研究已取得医院伦理委员会批准。

1.2 治疗方法

所有患者术前均行常规检查,术前 3d 采用抗生素行预防性感染治疗。对照组行传统鼻息肉摘除术,具体操作如下:患者实施局部浸润麻醉,将鼻息肉的下端以及后端用圈套器套住,

将其上移至鼻息肉的根蒂部,将息肉摘除。如存在多个息肉,由前向后的原则采用圈套器将鼻息肉逐一清除。手术完成后,对患者呼吸道中的分泌物进行清理,术后鼻腔填塞膨胀海绵进行止血,同时给予抗生素治疗 5d。研究组则行鼻内镜术,具体操作如下:患者体位呈仰卧位,采用 Messerklinger 术式,实施静脉复合全身麻醉,将鼻腔中的息肉组织进行切割,同时切除钩突,将息肉切除,打开筛泡,视患者具体情况,开放病变鼻窦窦口,鼻中隔重度偏曲者采取矫正措施,随之实施鼻窦手术,术后 24-48h 抽出鼻腔填塞物,手术完成后,对患者呼吸道中的分泌物进行清理,生理盐水冲洗鼻腔,1 次/d,给予抗生素治疗 5d,局部给予鲑鱼降钙素喷鼻剂(深圳大佛药业股份有限公司,国药准字 H20052507),患侧鼻孔 1 喷/次,2 次/d。术后通过门诊复查的方式随访 6 个月。

1.3 观察指标

(1)临床疗效 观察两组患者治疗后的临床疗效,疗效判定标准^[10]:患者临床症状消失,术后检查鼻窦口开放,鼻腔通畅,无脓性分泌物为显效;患者临床症状有所改善,鼻窦有少量脓性分泌物为有效;临床症状无改善甚至加重,有脓性分泌物,鼻窦口未开放为无效。总有效率=显效率+有效率。(2)临床指标 观察两组患者手术时间、术中出血量、术后住院时间并比较。(3)鼻腔通气功能、嗅觉功能 于术前、术后 6 个月采用美国 Master PF-10 型前鼻压测压器检测所有患者鼻腔通气功能,采用美国康涅狄格化学感觉临床研究中心所制定的嗅觉功能测试法标准进行判定:正常(0-0.1 分)、轻度损伤(1.1-2.5 分)、中度损伤(2.6-4.0 分)、重度损伤(4.1-5.4 分)、完全丧失(5.5 分以上)。(4)生活质量^[11] 采用 SF-36 生活量表对所有患者术前、术后 6 个月生活质量进行评定。SF-36 共 36 个条目,归入 8 个维度。分别为躯体功能(physical function, PF)、躯体角色(role physical, RP)、社会功能(social function, SF)、躯体疼痛(bodily pain, BP)、总体健康(general health, GH)、活力(vitality, VT)、情感角色(emotional role, RE)以及心理健康(mental health, MH)。每个维度评分范围为 100 分,分值越高,生活质量越高。(5)并发症 观察两组患者术后并发症发生情况。

1.4 统计学方法

研究数据录入 SPSS23.0 软件处理,计量资料用均数±标准差($\bar{x} \pm s$)表示,采用 t 检验,计数资料以率(%)表示,采用 χ^2 检验,检验标准设置为 $\alpha=0.05$ 。

2 结果

2.1 两组患者临床疗效比较

研究组临床总有效率为 91.49%,高于对照组的 65.96% ($P<0.05$)。详见表 1。

表 1 两组患者临床疗效比较[n(%)]

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

Groups	Effective	Good	Invalid	Total effective rate
Control group(n=47)	16(34.04)	15(31.92)	16(34.04)	31(65.96)
Study group(n=47)	21(44.68)	22(46.81)	4(8.51)	43(91.49)
χ^2				3.905
P				0.048

2.2 两组患者临床指标比较

术中出血量较对照组患者少($P<0.05$)。详见表 2。

研究组患者手术时间、术后住院时间均较对照组患者短,

表 2 两组患者临床指标比较($\bar{x}\pm s$)

Table 2 Comparison of clinical indicators of the two groups($\bar{x}\pm s$)

Groups	n	Time of operation(min)	Amount of bleeding(mL)	Time of postoperative hospitalization(d)
Control group	47	70.04± 14.52	116.79± 25.74	5.86± 1.52
Study group	47	44.47± 13.75	40.81± 10.63	3.35± 0.63
t	-	8.766	18.704	10.458
P	-	0.000	0.000	0.000

2.3 两组患者鼻腔通气功能、嗅觉功能比较

功能评分均较术前降低,且研究组低于对照组($P<0.05$);详见

表 3。

两组患者术前鼻腔通气功能、嗅觉功能评分比较差异无统
计学意义($P>0.05$),两组患者术后 6 个月鼻腔通气功能、嗅觉

表 3 两组患者鼻腔通气功能、嗅觉功能比较($\bar{x}\pm s$)

Table 3 Comparison of nasal ventilation and olfactory function of the two groups($\bar{x}\pm s$)

Groups	n	Nasal ventilation (kPa/s.L)		Olfactory function(scores)	
		Before operation	6 month after operation	Before operation	6 month after operation
Control group	47	3.24± 0.52	1.39± 0.24*	4.86± 1.22	2.12± 0.37*
Study group	47	3.47± 0.75	0.61± 0.13*	4.65± 1.23	1.31± 0.21*
t	-	1.728	19.591	0.831	13.053
P	-	0.087	0.000	0.408	0.000

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

2.4 两组患者生活质量比较

RE 以及 GH 均较术前升高,且研究组高于对照组($P<0.05$);两

组患者术前 PF、SF、RP、BP、MH、RE、VT 以及 GH 比较
无统计学差异($P>0.05$);两组患者术后 6 个月 PF、RP、BP、MH、

组患者术前、术后 6 个月 SF、VT 比较无统计学差异($P>0.05$);
详见表 4。

表 4 两组患者生活质量比较($\bar{x}\pm s$,分)

Table 4 Comparison of the quality of life of the two groups ($\bar{x}\pm s$, scores)

Groups	Time	PF	SF	RP	BP	MH	RE	VT	GH
Control group(n=47)	Before	84.69±	78.47±	75.58±	80.87±	76.39±	70.93±	79.23±	67.62±
	operation	17.46	18.24	19.36	16.24	18.31	15.17	20.17	21.22
	6 month after	88.04±	80.79±	81.69±	85.19±	81.41±	75.30±	80.84±	72.73±
	operation	13.57*	16.05	16.48*	17.18*	18.36*	14.85*	21.03	16.84*
Study group (n=47)	Before	84.57±	79.10±	74.28±	81.28±	75.64±	71.85±	81.12±	68.58±
	operation	16.52	19.92	20.59	17.57	20.19	16.26	22.23	24.25
	6 month after	92.59±	81.27±	87.33±	90.72±	85.67±	79.12±	82.16±	78.93±
	operation	14.49*#	21.26	18.62*#	18.48*#	18.28*#	17.22*#	21.37	22.32*#

Note: compared with before operation, * $P<0.05$; compared with control group, # $P<0.05$.

2.5 两组患者并发症发生情况比较

研究组头晕、头痛、流脓涕、鼻塞、复发等并发症发生率均
低于对照组($P<0.05$);而研究组出血、感染并发症发生率与对
照组相比差异无统计学意义($P>0.05$);详见表 5。

关于该病的发病机制、治疗方式、治疗效果以及疗效评价等尚
缺乏统一的认识,尤其是针对手术治疗方式的选择方面存在较
大的分歧,因此,通过探讨鼻内镜术与鼻息肉摘除术对鼻窦炎
合并鼻息肉患者的鼻腔通气功能、嗅觉功能和生活质量的影响,
来对上述两种手术方式作出有效评估具有重要的临床意义
[15-17]。传统的鼻息肉摘除术将大部分中鼻甲切除,对鼻腔内部粘
膜造成一定的损害,临床治疗效果不佳,且易增加术后并发症
发生率[18,19]。鼻内镜术是近年来治疗鼻窦炎合并鼻息肉患者的

3 讨论

鼻窦炎合并鼻息肉是由于患者鼻粘膜肿胀和炎性渗出导
致鼻窦形成缺氧环境,进而引发感染的一种鼻腔疾病[12-14]。目前

表 5 两组患者并发症发生情况比较[n(%)]

Table 5 Comparison of the incidence of complications in the two groups[n(%)]

Groups	n	Dizziness, headache	Nasal	Nasal congestion	Recrudescence	Hemorrhage	Infected
Control group	47	18(38.30)	15(31.91)	21(44.68)	12(25.53)	3(6.38)	2(4.26)
Study group	47	6(12.77)	2(4.26)	9(19.15)	4(8.51)	2(4.26)	1(2.13)
χ^2	-	8.057	12.136	7.050	4.821	0.211	0.344
<i>P</i>	-	0.005	0.000	0.008	0.028	0.646	0.557

新技术,可有效清除病变,保留无病变粘膜,对于提高临床疗效,防治病情反复具有重要的临床意义^[20-22]。

本研究结果显示研究组临床总有效率为 91.49%, 高于对照组的 65.96%, 且研究组患者手术时间、术后住院时间、术中出血量均低于对照组($P<0.05$)。提示鼻内镜手术治疗鼻窦炎合并鼻息肉患者,可显著提升临床治疗效果,且手术时间、术后住院时间、术中出血量等临床指标均有所改善。这主要是由于鼻内镜术可借助良好的照明视野以及多倍放大功能,从而获得较为理想的手术视野,对术区组织损伤较小,大大提高治疗效果^[23-25]。另外,两组患者术后 6 个月鼻腔通气功能、嗅觉功能评分均较术前降低,且研究组低于对照组($P<0.05$)。表明两种手术方式均可改善鼻窦炎合并鼻息肉患者的鼻腔通气功能、嗅觉功能,且鼻内镜治疗效果优于鼻息肉摘除术。分析原因,可能是鼻内镜术可有效接触鼻腔梗阻,对鼻腔内残留的嗅感觉神经纤维具有刺激作用,另外鼻内镜术术后创伤小,恢复快,可保证窦口鼻道复合体以筛放的通气与引流通畅,为鼻腔鼻窦粘膜纤毛功能的恢复创造了有利条件^[26-28]。关于生活质量考察方面,本研究显示两组患者术后 6 个月 PF、RP、BP、MH、RE 以及 GH 均较术前升高,且研究组高于对照组($P<0.05$);两组患者术前、术后 6 个月 SF、VT 比较无统计学差异($P>0.05$)。表明患者经鼻内镜术治疗后,生活质量可得到一定的改善,因 SF、VT 这两项评分受疾病本身影响,因此这两项变化比较不明显,而 PF、RP、BP、MH、RE 以及 GH 评分作为生存质量的主观指标,往往跟个体需求是否得到满足息息相关。经鼻内镜术治疗的患者,因其疗效较佳,对生活的不适以及厌倦等心理负担逐渐下降,主观感受得到满足,从而提高生活质量^[29,30]。另外研究组头晕、头痛、流脓涕、鼻塞、复发等并发症发生率均低于对照组($P<0.05$);而研究组出血、感染并发症发生率与对照组相比差异无统计学意义($P>0.05$)。表明鼻内镜术可有效降低术后并发症发生率,安全有效。然而出血、感染并发症发生率等比较差异不明显,这可能与本次研究样本量较小有关,后续报道将增大样本量以提供更为可靠的数据。

综上所述,鼻内镜术治疗鼻窦炎合并鼻息肉患者效果优于传统鼻息肉摘除术,可有效改善患者鼻腔通气功能、嗅觉功能、生活质量,安全有效,具有重要的临床意义。

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