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吻合器痔上黏膜环形切除术对环状混合痔患者肛门功能及生活质量的影响*

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摘要 目的:比较吻合器痔上黏膜环形切除术(PPH)和外剥内扎手术(MMH)治疗环状混合痔的疗效及对患者肛门功能恢复、生活质量的影响,为临床治疗环状混合痔的术式选择提供依据。**方法:**选取2016年8月-2018年1月我院收治的84例环状混合痔患者作为研究对象。采用随机数字表法将患者分为PPH组($n=42$)和MMH组($n=42$)。比较两组患者的疗效、手术及术后恢复情况。随访3个月,观察两组患者的并发症发生情况,并采用生活质量综合评定问卷(GQOL-74)评价两组患者的生活质量变化情况。术后6个月对所有患者进行直肠肛门测压,记录并比较两组测量结果。**结果:**PPH组患者治疗总有效率为97.62%,高于MMH组的83.33%($P<0.05$)。两组患者手术时间、创面愈合时间、住院时间及恢复工作时间比较,PPH组均明显短于MMH组($P<0.05$)。PPH组总并发症发生率为14.29%,低于MMH组的40.48%($P<0.05$)。术后3个月,两组患者GQOL-74各维度评分均高于术前,且PPH组患者GQOL-74各维度评分均高于MMH组患者($P<0.05$)。术后6个月,PPH组患者肛管静息压、肛管高压带长度、直肠肛门抑制反射阳性率均明显高于MMH组($P<0.05$),但两组肛管最大收缩压和直肠静息压比较无统计学差异($P>0.05$)。**结论:**PPH治疗环状混合痔疗效确切且兼具较高的安全性,可促进患者的术后恢复,明显改善患者肛门功能和生活质量。

关键词:环状混合痔;外剥内扎手术;吻合器痔上黏膜环形切除术;肛门功能;生活质量

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Effect of Procedure for Prolapse and Hemorrhoids on anal Function and Quality of Life in Patients with Circumferential Mixed Hemorrhoids*

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ABSTRACT Objective: To compare the effect of procedure for prolapse and hemorrhoids (PPH) and Milligan-morgan haemorrhoidectomy (MMH) on anal function and quality of life in patients with circumferential mixed hemorrhoids, so as to provide basis for the selection of surgical methods for the treatment of circumferential mixed hemorrhoids. **Methods:** 84 patients with circumferential mixed hemorrhoids who were treated in our hospital from January 2017 to June 2018 were selected as the research subjects. The patients were divided into PPH group($n=42$) and MMH group($n=42$) according to random number table method. The efficacy, operation and postoperative recovery of the two groups were compared. After 3 months of follow-up, the complications of the two groups were observed, and the quality of life comprehensive assessment questionnaire (GQOL-74) was used to evaluate the quality of life of the two groups. The anorectal manometry was performed for all patients at 6 months after operation, recorded and compared the results of measurements of two groups. **Results:** The total effective rate of PPH group was 97.62%, which was significantly higher than 83.33% of MMH group ($P<0.05$). The operation time, wound healing time, hospital stay and return to work time of PPH group were significantly shorter than those of MMH group ($P<0.05$). The incidence of total complications in PPH group was 14.29%, which was significantly lower than 40.48% in MMH group ($P<0.05$). At 6 months after operation, the anal canal resting pressure, the length of anal canal high pressure band and the positive rate of anorectal inhibition reflex in PPH group were significantly higher than those in MMH group ($P<0.05$). However, there was no significant difference between the two groups in anal systolic pressure and rectal resting pressure ($P>0.05$). **Conclusion:** PPH is effective and safe in the treatment of circumferential mixed hemorrhoids. It can promote postoperative recovery and improve anal function and quality of life in patients.

Key words: Circumferential mixed hemorrhoids; Milligan-morgan haemorrhoidectomy; Procedure for prolapse and hemorrhoids; Anal function; Quality of life

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前言

环状混合痔是肛肠科常见的难治性疾病,其早期即有明显的疼痛感,而当病情发展至中后期患者可产生肛门坠胀、瘙痒等,严重者可出现嵌顿、贫血及坏死等,严重影响患者的正常生活及工作^[1,2]。外剥内扎手术(Milligan-morgan haemorrhoidectomy, MMH)是治疗环状混合痔的经典术式,其可在保留黏膜桥、皮肤桥及部分肛垫的情况下,对肛管皮肤黏膜进行切除,但由于手术时间长、创口面积大、术后疼痛严重,且易产生较多的术后并发症,严重影响患者康复进程^[3,4]。有研究报道^[5],MMH还可能导致环状混合痔患者的肛门自控能力受到损伤,对患者的肛门功能有不利影响。随着现代医学技术的不断提高,MMH已经无法满足临床需要,寻找一种更加有效的手术方式显得尤为迫切。吻合器痔上黏膜环形切除术(Procedure for prolapse and hemorrhoids, PPH)具有切口小、疼痛轻、并发症少的特点,临床上常被用于治疗环状混合痔^[6,7]。为了进一步验证 PPH 治疗环状混合痔的效果,本研究对比分析了 PPH 和 MMH 对环状混合痔患者肛门功能恢复及生活质量的影响,结果报道如下。

1 资料与方法

1.1 一般资料

研究对象为 84 例于 2016 年 8 月-2018 年 1 月间在我院进行治疗的环状混合痔患者。纳入标准^[8]:① 患者均符合《中医肛肠科病诊断疗效标准》的相关诊断标准;② 痔疮分度为 II-IV 度;③ 患者及家属对研究知情同意且签署同意书。排除标准:① 合并肛周皮炎、肛瘘等其他肛门疾病者;② 合并糖尿病、血液系统性疾病、肺部疾病者;③ 合并直肠恶性肿瘤者;④ 合并严重心脑血管疾病,不能耐受手术者。研究经医院伦理委员会批准通过。采用随机数字表法将患者分为 PPH 组(n=42)和 MMH 组(n=42)。PPH 组男 25 例,女 17 例,年龄 25-68 岁,平均(38.64±6.72)岁,病程 6~21 年,平均(13.42±3.47)年,痔疮分度:III 度 31 例,IV 度 11 例。MMH 组男 24 例,女 18 例,年龄 24-66 岁,平均(37.92±6.64)岁,病程 5~19 年,平均(14.03±3.28)年,痔疮分度:III 度 29 例,IV 度 13 例。两组患者一般资料比较无显著性差异(P>0.05),基线资料均衡可比。

1.2 手术方法

PPH 组患者行 PPH 治疗:患者取膀胱截石位,采用腰麻或骶管麻醉后,对肛门会阴部进行常规消毒,充分扩肛至可容纳

三指以上,置入肛管扩张器,拔出内芯后置入缝扎器和肛镜。通过缝扎器用 7 号缝线在齿状线上方约 4cm 处做 2 圈黏膜荷包缝合,将吻合器头端伸入到环扎处上端,收紧缝线。从吻合器对称的两个侧孔用带线器将缝线拉出并牵引收紧吻合器,将组织钳向外牵拉打开保险开关击发吻合器;压迫 30 s 后旋转松开出吻合器;对吻合口出现活动性出血的患者进行缝扎止血。MMH 组患者行 MMH 治疗:患者取膀胱截石位,采用腰麻或骶管麻醉后,对肛门会阴部进行常规消毒,充分扩肛,暴露痔核,以血管钳夹在齿状线附近夹持痔核末端向外牵拉,行倒“V”字形皮肤切口剥离外痔静脉丛至齿状线稍上方的内痔部分;将内痔的基底部止血钳夹住,用 7 号丝线“8”字缝扎,切除距缝扎处约 0.5 cm 的远端痔组织。两组患者手术当日可进流食,但避免排便,术后 3~7 d 均常规给予抗生素。

1.3 观察指标

① 术后评价两组疗效^[9],疗效共分为 4 个等级:痊愈:便后出血症状消失,脱垂痔块完全回缩;显效:便后出血症状消失,脱垂痔块明显回缩;有效:便后出血的症状仅在劳累或大便干结时出现,脱垂痔块术后有部分回缩;无效:间歇性便后出血症状在术后无改善,痔块回缩不明显。有效率=痊愈率+显效率+有效率。② 记录并比较两组患者的手术及术后恢复情况,包括每名患者的手术时间、创面愈合时间、住院时间及恢复工作时间。③ 所有患者均随访 3 个月,记录并比较两组患者的并发症发生情况。④ 分别于术前及术后 3 个月采用生活质量综合评定问卷(GQOL-74)^[10]评价两组患者的生活质量。GQOL-74 评分共包含躯体功能、心理功能、社会功能和物质功能 4 个维度,每个维度各 100 分,分数越高表明生活质量状况越好。⑤ 所有患者均于术后 6 个月采用 ZGJ-D3 型肛肠压力检测仪(合肥奥源科技发展有限公司)行直肠肛门测压,记录两组患者肛门功能相关指标。

1.4 统计学方法

采用 SPSS23.0 统计学软件对研究数据进行处理。手术及术后恢复指标、生存质量评分、肛管直肠测压结果等计量资料以($\bar{x} \pm s$)表示,行 t 检验;有效率等计数资料以[n(%)]表示,行 χ^2 检验。将 $\alpha=0.05$ 设为检验标准。

2 结果

2.1 两组治疗效果比较

PPH 组患者治疗总有效率为 97.62%(41/42),高于 MMH 组的 83.33%(35/42),差异有统计学意义(P<0.05)。见表 1。

表 1 两组治疗效果比较[n(%)]

Table 1 Comparison of treatment effect in two group [n(%)]

Groups	n	Recovery	Effective	Valid	Invalid	Total effective rate
PPH group	42	13(30.95)	22(52.38)	6(14.29)	1(2.38)	41(97.62)
MMH group	42	10(23.81)	18(42.86)	7(16.67)	7(16.67)	35(83.33)
χ^2	-		-			4.974
P	-		-			0.026

2.2 两组手术及术后恢复情况比较

两组患者手术时间、创面愈合时间、住院时间及恢复工作

时间比较,PPH 组均明显短于 MMH 组(P<0.05)。见表 2。

表 2 两组手术及术后恢复情况比较($\bar{x} \pm s$)Table 2 Comparison of surgery and postoperative recovery of two groups($\bar{x} \pm s$)

Groups	n	Operation time(min)	Wound healing time(d)	Hospital stay(d)	Return to work time(d)
PPH group	42	19.45 $\pm$ 3.82	7.34 $\pm$ 1.68	5.79 $\pm$ 2.15	8.91 $\pm$ 2.04
MMH group	42	31.63 $\pm$ 5.49	12.43 $\pm$ 2.35	9.63 $\pm$ 2.74	15.29 $\pm$ 3.67
t	-	11.802	11.419	7.145	9.847
P	-	0.000	0.000	0.000	0.000

2.3 两组患者并发症发生情况比较

40.48%(17/42),差异有统计学意义($P<0.05$)。见表 3。

PPH 组总并发症发生率为 14.29%(6/42),低于 MMH 组的

表 3 两组患者并发症发生情况比较[n(%)]

Table 3 Comparison of the incidence of complications in two groups [n(%)]

Groups	n	Anal margin edema	Anus incontinence	Fall-swell in the anus	Retention of urine	Anus stenosis	Total incidence
PPH group	42	1(2.38)	0(0.00)	1(2.38)	2(4.76)	2(4.76)	6(14.29)
MMH group	42	3(7.14)	4(9.52)	2(4.76)	3(7.14)	5(11.90)	17(40.48)
χ^2	-	-	-	7.244	-	-	-
P	-	-	-	0.007	-	-	-

2.4 两组患者生活质量变化情况比较

高于术前($P<0.05$),且 PPH 组患者 GQOL-74 各维度评分均高两组患者术前 GQOL-74 各维度评分比较差异均无统计学意义($P>0.05$)。术后 3 个月,两组患者 GQOL-74 各维度评分均于 MMH 组患者($P<0.05$)。见表 4。表 4 两组患者 GQOL-74 评分变化情况($\bar{x} \pm s$,分)Table 4 Changes in GQOL-74 scores of patients in two groups ($\bar{x} \pm s$, score)

Groups	n	Somatic function		Psychological function		Social function		Material function	
		Before operation	3 months after operation	Before operation	3 months after operation	Before operation	3 months after operation	Before operation	3 months after operation
PPH group	42	53.91 $\pm$ 5.87	70.45 $\pm$ 8.82*	56.87 $\pm$ 5.49	71.14 $\pm$ 7.88*	52.32 $\pm$ 4.87	68.34 $\pm$ 8.35*	57.95 $\pm$ 6.13	74.35 $\pm$ 7.07*
MMH group	42	54.35 $\pm$ 6.22	64.52 $\pm$ 7.31*	56.31 $\pm$ 5.14	66.96 $\pm$ 7.09*	51.65 $\pm$ 5.12	61.92 $\pm$ 6.70*	57.43 $\pm$ 5.86	67.28 $\pm$ 6.84*
t	-	0.333	3.355	0.483	2.556	0.614	3.886	0.397	6.658
P	-	0.740	0.001	0.631	0.012	0.541	0.000	0.692	0.000

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

2.5 两组患者肛管直肠测压结果比较

肠肛门抑制反射阳性率均高于 MMH 组($P<0.05$),但两组肛管

术后 6 个月,PPH 组患者肛管静息压、肛管高压带长度、直

最大收缩压和直肠静息压比较无统计学差异($P>0.05$)。见表 5。

表 5 两组患者肛管直肠测压结果比较

Table 5 Comparison of anorectal manometry results of patients in two groups

Groups	n	Anal canal resting pressure(mmHg)	Length of anorectal hyperbaric zone(cm)	Maximum contractile pressure of anal canal (mmHg)	Rectal resting pressure(mmHg)	Anorectal reflex positive rate[n(%)]
PPH group	42	57.25 $\pm$ 8.27	3.82 $\pm$ 0.67	151.38 $\pm$ 29.54	5.61 $\pm$ 1.45	36(85.71)
MMH group	42	46.58 $\pm$ 7.93	2.68 $\pm$ 0.89	147.26 $\pm$ 32.19	5.47 $\pm$ 1.41	27(64.29)
t/ χ^2	-	6.035	6.632	0.611	0.449	5.143
P	-	0.000	0.000	0.543	0.655	0.023

3 讨论

环状混合痔是常见的肛门疾病,久坐、过量吸烟、饮酒、常吃辛辣食物等不良生活习惯均是其发生的危险因素^[11,12]。I、II 度

环状混合痔症状较轻, 往往采用保守治疗即可, III、IV 度环状混合痔则需进行手术治疗^[13,14]。临床治疗 III、IV 度环状混合痔主要有三种方法, 包括环形切除手术、MMH 和 PPH^[15-17]。其中环形切除手术需将环状混合痔患者的全部肛垫、肛周皮肤切除, 术后肛管狭窄、肛门失禁的发生率高^[18,19], 目前临床已不再使用。MMH 可在对肛管皮肤黏膜切除的同时, 保留黏膜桥、皮肤桥及部分肛垫^[20]。PPH 则可通过将直肠末端黏膜和黏膜下层环形切除并进行吻合, 在促进肛垫上提复位的同时, 对肛管区做正常解剖结构复位^[21]。

本研究就 MMH 和 PPH 对环状混合痔的治疗效果进行了对比分析, 结果表明, PPH 组患者治疗总有效率为 97.62%, 高于 MMH 组的 83.33%, 同时两组患者手术时间、创面愈合时间、住院时间及恢复工作时间比较, PPH 组均明显短于 MMH 组。提示 PPH 治疗环状混合痔具有较好的临床疗效, 且能明显促进患者的术后恢复, 与相关研究结果^[22,23]相符。这主要是由于 PPH 在治疗的过程中可一次性地将切除与吻合完成, 其不直接作用于环状混合痔, 无开放性创面, 因此有利于减轻患者疼痛、促进创口愈合^[24-26]。观察两组的并发症发生情况发现, PPH 组总并发症发生率为 14.29%, 明显低于 MMH 组的 40.48%, 提示 PPH 具有较好的安全性。这主要是由于 PPH 不切除起精细闭合肛管作用的肛垫, 对肛管区的正常解剖结构的复位较好, 最大限度地保护了肛门的生理功能^[27-29]。PPH 组患者术后 3 个月 GQOL-74 各维度评分均明显高于 MMH 组患者, 表明 PPH 可明显改善环状混合痔患者的生活质量, 也进一步表明 PPH 治疗环状混合痔的优越性。术后 6 个月, 对两组患者进行肛管直肠测压, 结果发现 PPH 组患者肛管静息压、肛管高压带长度、直肠肛门抑制反射阳性率均明显高于 MMH 组, 说明 PPH 组患者术后肛管直肠抑制反射功能恢复较好, 肛门应激自制功能改善更为明显。有研究^[30]认为, 在治疗环状混合痔的过程中, MMH 切除组织的多少往往难以控制, 若切除的组织过多, 将损害局部解剖结构的完整性, 而切除的组织过少, 又可能导致痔残留。因此行 MMH 可能引起肛管精细辨别感减弱、直肠肛管顺应性降低等情况的发生。而 PPH 对患者肛门括约肌无损伤, 且在肛门口位没有手术切口, 术后肛门功能恢复较快。另外两组肛管最大收缩压和直肠静息压比较无统计学差异, 说明在对肛门自制功能、直肠存储与排空功能的作用上, MMH 和 PPH 两种术式无明显差异。

综上所述, PPH 治疗环状混合痔疗效确切且兼具较高的安全性, 可促进患者的术后恢复、明显改善患者肛门功能和生活质量。另需注意的是, PPH 术中需防止肛管皮肤产生撕裂, 因此需充分扩肛, 术中动作要轻柔; 吻合口完成后需对吻合口及吻合器切除组织的完整性进行检查; 女性患者行 PPH 时, 进针不能过深, 吻合器击发前, 需确保引导后壁拉进吻合器内。

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