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保留假包膜对宫腔镜下粘膜下子宫肌瘤切除术后瘢痕区血流灌注的影响*

王书平 桑学梅 吴霞 刘艳 王燕君

(皖北煤电集团总医院蚌埠医学院第三附属医院妇产科 安徽 宿州 234000)

摘要 目的:探究在宫腔镜下粘膜下子宫肌瘤切除术中保留假包膜对术后瘢痕区血流灌注的影响。**方法:**选取 2016 年 8 月~2018 年 9 月我院收治的子宫肌瘤患者 80 例为研究对象,根据随机数字表法将患者分为两组,对照组患者 40 例在手术过程中不保留假包膜,观察组患者 40 例在手术过程中保留假包膜。比较两组患者手术相关指标(手术时间、术中出血量、排气时间和下床活动时间)、术后瘢痕变化情况、瘢痕区域的血流灌注情况及并发症的发生情况。**结果:**两组患者的手术时间、术中出血量、排气时间和下床活动时间相比均无统计学差异($P>0.05$)。随着术后时间的推移,两组患者的瘢痕区逐渐缩小,且观察组患者的瘢痕愈合程度高于对照组($P<0.05$)。观察组患者术后的血管指数(VI)、血流指数(FI)和血管化血流指数(VFI)值均显著低于对照组($P<0.05$)。两组患者的并发症发生率比较无统计学差异($P>0.05$)。**结论:**在宫腔镜下粘膜下子宫肌瘤切除术中保留假包膜与不保留假包膜的手术效果相当,但保留假包膜可显著改善患者瘢痕区域的血流灌注,促进创面愈合,且不增加并发症的发生率。

关键词:假包膜;子宫肌瘤切除术;瘢痕区血流灌注

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Effect of Retained Pseudocapsule on the Blood Perfusion in the Scar Area after Hysteroscopic Submucosal Myomectomy*

WANG Shu-ping, SANG Xue-mei, WU Xia, LIU Yan, WANG Yan-jun

(Department of obstetrics and gynecology, Wanbei coal-electricity group general hospital bengbu medical college third affiliated hospital, Suzhou, Anhui, 234000, China)

ABSTRACT Objective: To explore the effect of retained pseudocapsule on the postoperative blood perfusion in the scar area after hysteroscopic submucosal myomectomy. **Methods:** 80 cases of uterine myomas patients admitted to our hospital from August 2016 to September 2018 were selected as the study objects. The patients were divided into two groups according to the random number table method. 40 cases in the control group did not retain pseudocapsule during the operation, and 40 cases in the observation group retained pseudocapsule during the operation. The surgical related indicators (operation time, peroperative bleeding, exhaust time and time to get out of bed), changes of postoperative scar, blood perfusion in the scar areas and incidence of complications were compared between two groups. **Results:** There was no statistically significant difference between the two groups in the operation time, peroperative bleeding, exhaust time and time to get out of bed ($P>0.05$). As the postoperative time went on, the scar area of both groups of patients were decreased successively, and the wound healing degree of observation group was higher than that of the control group ($P<0.05$). The VI, FI and VFI values of patients in the observation group were significantly lower than those of the control group ($P<0.05$). There was no significant difference in the incidence of complications between the two groups ($P>0.05$). **Conclusion:** In hysteroscopic submucosal myomectomy, the operation effect of retaining pseudocapsule is comparable to that of not retaining pseudocapsule, but the pseudocapsule can significantly improve the blood perfusion in the scar area of the patient, promote wound healing, and not increase the incidence of complications.

Key words: Pseudocapsule; Hysteroscopic submucosal myomectomy; Blood perfusion

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前言

子宫肌瘤是一种常见的生殖系统良性肿瘤,随着现代社会生活节奏的加快,压力的增加,其发病率呈现逐年上升的态势^[1,2]。流行病学调查显示子宫肌瘤在绝经前妇女中的发病率约为 21%~53%,其中约有 1.0%~2.4%的不孕症患者发生肌瘤变

性^[3,4]。子宫肌瘤的临床症状主要表现为月经增多、贫血、痛经和不孕,其发病机理主要是子宫平滑肌细胞恶性增殖使得患者的盆腔出现大小不一的纤维肿块,当肿块不断增大后患者出现月经异常、腹痛等临床症状,当肌瘤压迫引起子宫变形时会对生育能力产生一定的影响,不仅影响患者的健康,还会给患者带来极大的心理负担^[5-7]。

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作者简介:王书平(1980-),女,本科,主治医师,研究方向:宫颈癌,E-mail: wangshuping_1980@163.com

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目前,手术是治疗子宫肌瘤最理想的方法,包括开腹、腹腔镜、阴式和宫腔镜下子宫肌瘤剔除术,其中宫腔镜下子宫肌瘤剔除术是首选的治疗方案^[8-10]。假包膜是肌瘤在生长的过程中压迫周围肌壁纤维于肌瘤和子宫肌层之间形成的一层组织,内含血管网和一些类似神经束的神经网络,含有大量的免疫物质、神经肽和神经纤维,手术过程中是否保留假包膜一直是临床争论的焦点^[11-13]。因此,本研究主要比较了保留和不保留假包膜对宫腔镜下粘膜下子宫肌瘤切除术后瘢痕区血流灌注的影响,以期为临床治疗提供参考。

1 资料与方法

1.1 一般资料

本研究时间段为2016年8月~2018年9月,80例患者均符合子宫肌瘤相关诊断标准^[14]。入选标准:①经B超检查确诊为子宫肌瘤;②符合手术指征;③患者要求保留生育功能;④患者签署知情同意书。排除标准:①合并其他妇科疾病者;②入组前经过激素治疗者;③合并心、肝、肾等重要器官功能障碍者;④凝血功能异常者。采用随机数字表法将患者分为两组,对照组40例,年龄24~40岁,平均 34.25 ± 5.32 岁;肌瘤位置:浆膜下肌瘤17例,肌壁间肌瘤23例;肌瘤直径2~5 cm,平均 3.24 ± 0.54 cm;月经情况:正常12例,异常28例。观察组40例,年龄23~41岁,平均 35.14 ± 5.61 岁;肌瘤位置:浆膜下肌瘤18例,肌壁间肌瘤22例;肌瘤直径3~5 cm,平均 3.51 ± 0.57 cm;月经情况:正常14例,异常26例。两组一般临床资料比较差异无统计学意义($P>0.05$),具有可比性。

1.2 治疗方法

所有患者术前一晚均对宫颈进行扩张和软化,术前常规使

用抗生素预防感染,生理盐水充盈膀胱后,超声观察子宫肌瘤的位置和大小。在宫腔镜下沿宫腔和子宫肌瘤交界处将肌瘤表面内膜打开,观察组将镜体喙部插入肌瘤和假包膜交界处,在超声下依次剥离肌瘤与肌瘤假包膜,突入宫腔后用环形电极切割瘤体,用钳夹配合取出,术后保留假包膜。对照组患者打开肌瘤表面内膜后直接反复切割肌瘤,缩小体积后取出肌瘤组织,术后切除突入宫腔内的假包膜组织。两组患者术后均在宫腔内放置球囊防止术后出血,并与术后4~6h根据患者的具体情况拔除球囊。

1.3 观察指标

①比较两组手术相关指标。②比较两组患者术后瘢痕变化情况,分别于术后第2天、第7天、第35天和第45天行阴道超声检查,测量瘢痕大小。③比较两组患者术后瘢痕区域的血流灌注情况,将瘢痕处血流密集区域设为敏感区,采用阴道超声扫描,扫描时间为3~5s,观察血流情况,检测该区域的血管指数(VI)、血流指数(FI)和血管化血流指数(VFI)值。④比较两组并发症发生率。

1.4 统计学方法

采用SPSS16.0对数据进行统计学分析,计数资料以例和率(%)表示,组间比较行 χ^2 检验,计量资料以 $(\bar{x} \pm s)$ 表示,组间比较采用t检验,以 $P<0.05$ 为差异有统计学意义。

2 结果

2.1 两组患者手术相关指标比较

两组患者的手术时间、术中出血量、排气时间和下床活动时间相比均无统计学差异($P>0.05$),见表1。

表1 两组患者手术相关指标比较 $(\bar{x} \pm s)$

Table 1 Comparison of the surgical indicators between two groups $(\bar{x} \pm s)$

Groups	Case	Operation time(min)	Peroperative bleeding (mL)	Exhaust time(h)	Time to get out of bed (h)
Control group	40	34.25 ± 8.41	25.45 ± 6.31	12.34 ± 3.43	7.35 ± 1.85
Observation group	40	32.61 ± 7.58	26.33 ± 7.05	11.85 ± 3.17	7.41 ± 1.92
t	-	0.916	-0.588	0.664	-0.142
P	-	0.362	0.588	0.509	0.887

2.2 两组患者术后瘢痕变化情况比较

随着术后时间的推移,两组患者的瘢痕区逐渐缩小,且观

察组患者的瘢痕愈合程度高于对照组($P<0.05$),见表2。

表2 两组患者术后瘢痕变化情况比较 $(\bar{x} \pm s, \%)$

Table 2 Comparison of postoperative scar changes between two groups $(\bar{x} \pm s, \%)$

Groups	Case	2 nd day	7 th day	35 th day	45 th day	Totle scarification
Control group	40	78.15 ± 10.17	71.25 ± 8.57	25.37 ± 7.02	10.23 ± 2.58	51.28 ± 10.34
Observation group	40	83.12 ± 9.85	77.36 ± 8.01	30.58 ± 8.13	13.46 ± 3.11	46.85 ± 8.02
t	-	-2.220	-3.294	-3.068	-5.055	2.141
P	-	0.029	0.001	0.003	<0.001	0.035

2.3 两组患者瘢痕区域VI、FI和VFI比较

术后,观察组患者的VI、FI和VFI均显著低于对照组

($P<0.05$),见表3。

表 3 两组患者瘢痕区域血流灌注情况比较($\bar{x} \pm s$)
Table 3 Comparison of the VI, FI and VFI between two groups($\bar{x} \pm s$)

Groups	Case	VI	FI	VFI
Control group	40	1.65± 0.41	29.31± 7.12	0.89± 0.21
Observation group	40	1.30± 0.33	22.58± 6.08	0.35± 0.08
t	-	4.206	4.546	15.198
P	-	<0.001	<0.001	<0.001

2.4 两组患者并发症发生情况的比较

见表 4。

两组患者的并发症发生率比较并无统计学差异 ($P>0.05$),

表 4 两组患者的并发症的发生率比较[例(%)]
Table 4 Comparison of the incidence of complications rate between two groups[n(%)]

Groups	Case	Fever	Urinary tract infection	Wound bleeding	Intestinal injury	Total complications
Control group	40	1(2.50)	1(2.50)	2(5.00)	1(2.50)	5 (12.50)
Observation group	40	1(2.50)	0(0.00)	1(2.50)	0(0.00)	2(5.00)
χ^2	-					1.409
P						0.432

3 讨论

子宫肌瘤是一种类固醇依赖性肿瘤,雌激素和雄激素在其发生发展的过程中起到了重要的作用,子宫肌瘤的生长和多种细胞因子和受体表达异常有关,且于月经周期的分泌期从外周假包膜区域开始生长^[15-17]。宫腔镜子宫肌瘤切除术可保持患者的解剖和生理结构的完整性,最大限度的保护患者的生育功能^[18-20]。而开腹和腹腔镜手术需要切开子宫浆肌层,缝合创面,破坏患者的子宫肌层完整性。因此,本研究选用宫腔镜子宫肌瘤剔除术对保留假包膜后患者的瘢痕区域的血流灌注及愈合情况进行研究。

假包膜是子宫肌瘤和正常的子宫肌壁之间的一层明显分隔的区域,于子宫肌壁借助纤维组织相连,内见血管和神经网络。假包膜中的血管不仅为肌瘤的生长提供养分,还能够促进创面的愈合。假包膜中的神经网络中含有大量的神经肽和纤维,可与血管、细胞外基质和血细胞共同参与创面的愈合^[21-23]。近年来研究显示假包膜中含有层粘连蛋白和IV胶原蛋白,可调节正常子宫肌层的韧性、弹力和强度,促进肌层的功能恢复^[24,25]。本研究结果显示保留假包膜的患者瘢痕愈合程度和血流灌注情况均显著优于不保留假包膜的患者,说明保留假包膜后对患者的创面愈合具有积极的作用。

子宫肌瘤假包膜是典型的纤维神经血管组织,具有限制神经血管环向发展和导向子宫纤维组织生长的作用,影响子宫肌层的神经血管功能^[26,27]。假包膜的血管在子宫肌瘤的底部连接,在手术过程中经常会发生出血,剔除肌瘤时电凝假包膜血管,使血管闭合,既保留了血管也使得术后无水肿的发生^[28]。子宫肌瘤剔除术后患者的创面愈合经历了炎症反应、形成水肿、肌肉再生和修复、重塑并形成瘢痕等过程。在整个过程中既需要血液供应养分,也需要多种生长因子的催化^[29,30]。保留假包膜可

同时保留假包膜中丰富的血管网、神经网络和多种生长因子、功能蛋白等,且可抑制层粘连蛋白的减少和IV胶原蛋白的增加,对改善术后瘢痕区域的血流灌注和创面愈合具有积极的作用^[31]。本研究中,两种手术方法的手术时间、术中输血量、排气时间和下床活动时间均无显著差异,说明两种手术方法的手术效果相当。在并发症方面,保留假包膜的手术不会增加患者的并发症,安全性较高。宫腔镜子宫肌瘤剔除术在扩宫、切割及钳夹取出肌瘤的过程中均有发生子宫穿孔的风险,又由于创面的局部炎症反应,在术后可能会造成宫腔粘连。但本研究中两组患者均未出现子宫穿孔和宫腔粘连的并发症。

综上所述,在宫腔镜下粘膜下子宫肌瘤切除术中保留假包膜与不保留假包膜的手术效果相当,但保留假包膜可显著改善患者瘢痕区域的血流灌注,促进创面愈合,且不增加并发症的发生,安全有效。

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