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阴式手术与开腹手术对子宫良性肿瘤患者炎症应激反应、盆底功能及性生活质量的影响*

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摘要 目的:探讨阴式手术与开腹手术对子宫良性肿瘤患者盆底功能、炎症应激反应及性生活质量的影响。**方法:**回顾性分析我院自2017年3月~2019年1月期间收治的子宫良性肿瘤患者78例的临床资料,上述患者根据手术方案的不同分为A组(n=38,给予开腹手术治疗)和B组(n=40,给予阴式手术治疗),对比两组患者围术期指标、炎症应激指标[白介素-6(IL-6)、C反应蛋白(CRP)、皮质醇(Cor)]、盆底功能障碍发生率、并发症发生率及性生活质量。**结果:**B组术后排气时间、手术时间、住院时间、术后下床时间短于A组,术中出血量少于A组($P<0.05$)。两组术后2d的IL-6、CRP、Cor均升高,但B组低于A组($P<0.05$)。B组患者盆底功能障碍发生率为12.50%(5/40),低于A组的36.84%(14/38)($P<0.05$)。两组患者术后1年女性性功能指数量表(FSFI)评分均较术前增加,且B组高于A组($P<0.05$)。B组术后并发症发生率低于A组($P<0.05$)。**结论:**与开腹手术相比,阴式手术应用于子宫良性肿瘤患者,可有效改善围术期指标、炎症应激反应、盆底功能及性生活质量,减少并发症发生率。

关键词: 阴式手术;开腹手术;子宫良性肿瘤;炎症应激反应;盆底功能

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Effects of Vaginal and Open Surgery on Inflammatory Stress Response, Pelvic Floor Function and Sexual Quality of Life in Patients with Uterine Benign Tumor*

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ABSTRACT Objective: To investigate the Effects of vaginal and open surgery on pelvic floor function, inflammatory stress response and sexual quality of life in patients with uterine benign tumor. **Methods:** The clinical data of 78 patients with uterine benign tumor from March 2017 to January 2019 were analyzed retrospectively, the patients were divided into group A (n=38, treatment by open surgery) and group B (n=40, treatment by vaginal surgery) according to the different operative plans, the indexes of perioperative period, inflammatory stress indexes [Interleukin-6 (IL-6), C-reactive protein (CRP), Cortisol (Cor)], pelvic floor dysfunction, complications and sexual quality of life were compared between the two groups. **Results:** The time of exhaust, operation, hospitalization and getting out of bed in group B were shorter than that in group A, and the amount of bleeding was less than that in group A ($P<0.05$). The levels of IL-6, CRP and cor were all increased in two groups, but the level in group B was lower than that in group A ($P<0.05$). The incidence of pelvic floor dysfunction in group B was 12.50% (5 / 40), lower than 36.84% (14 / 38) in group A ($P<0.05$). The score of Female sexual function index scale (FSFI) in the two groups was higher than that before operation, and the score in group B was higher than that in group A ($P<0.05$). The incidence of postoperative complications in group B was lower than that in group A ($P<0.05$). **Conclusion:** Compared with laparotomy, vaginal surgery can effectively improve the perioperative indicators, inflammatory stress response, pelvic floor function and sexual quality of life, and reduce the incidence of complications.

Key words: Vaginal operation; Laparotomy; Uterine benign tumor; Inflammatory stress response; Pelvic floor function

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前言

子宫良性肿瘤又称子宫肌瘤,是女性生殖器官常见的良性肿瘤,由平滑肌及结缔组织组成,常发于30~50岁妇女^[1]。近年来随着环境的变化,女性生活压力的增加,该病的患病率呈逐年递增趋势,严重影响患者生活质量^[2]。虽然子宫良性肿瘤属于良性范围,但也有往恶性发展的趋势,若未能及时予以治疗,肌瘤增大压迫周围器官,引起周围器官功能障碍^[3]。手术是治疗该病的主要手段,其中子宫切除是年龄较大且无生育要求的患者的首选治疗方案^[4]。既往临床多采用开腹手术,可获得较好的疗效,但开腹手术的术后组织损伤严重,影响术后恢复进度^[5]。阴式手术是通过阴道这一天然通道进行子宫切除术,近年来已逐渐开始应用于临床^[6]。现临床有关子宫良性肿瘤患者采用阴式手术或开腹手术的术后疗效尚存在一定的争议,本研究就此展开分析,以期对临床子宫良性肿瘤术式的选择提供借鉴。

1 资料与方法

1.1 一般资料

回顾性分析我院自2017年3月~2019年1月期间收治的子宫良性肿瘤患者78例的临床资料,纳入标准:(1)临床资料完整者;(2)均符合手术指征,且均由同一组医师完成手术操作;(3)经妇科检查、超声、细胞学检查确诊。排除标准:(1)合并心肺肾等脏器功能不全者;(2)既往有凝血功能障碍者;(3)既往有神经、内分泌疾病者;(4)合并其他恶性肿瘤病变者;(5)合并精神障碍无法正常交流者;(6)既往有子宫手术史及下腹部手术史者;(7)合并免疫缺陷、急慢性感染者;(8)未能完成随访研究者。上述患者根据手术方案的不同分为A组(n=38,给予开腹手术治疗)和B组(n=40,给予阴式手术治疗),其中A组年龄35~56岁,平均(46.28±3.71)岁;产次1~3次,平均(2.07±0.39)次;单发子宫良性肿瘤21例,多发子宫良性肿瘤17例;子宫良性肿瘤直径2~7cm,平均(4.83±0.76)cm。B组年龄34~58岁,平均(46.57±3.98)岁;产次1~3次,平均(1.98±0.44)次;单发子宫良性肿瘤23例,多发子宫良性肿瘤17例;子宫良性肿瘤直径2~8cm,平均(4.97±0.96)cm。两组一般资料对比无差异($P>0.05$),具有可比性。本次研究已通过我院伦理学委员会批准进行。

1.2 方法

A组给予开腹子宫切除术,麻醉方法为腰硬联合麻醉或连续硬膜外麻醉,患者体位呈仰卧位,取腹中线,在耻骨与肚脐联合上缘间作一切口,长约7~10cm。探查盆腔,观察子宫与附件病变状况。将子宫提拉并切除,止血后缝合。B组患者给予阴式子宫切除术,术前两天使用碘伏对阴道进行冲洗。麻醉方法选用腰硬联合麻醉、连续硬膜外麻醉,体位选取截石位,采用4-0丝线将小阴唇固定在大阴唇外侧,以将阴道口视野彻底暴露。随后将膀胱上推至膀胱腹膜折返处,切开并在中点处采用4-0丝线做缝合腹膜标记。切断并缝扎子宫动静脉以及子宫骶韧带,取出子宫随即缝合,常规留置导尿管。

1.3 方法

(1)记录两组术中出血量、术后下床时间、住院时间、术后排气时间、手术时间。(2)记录两组术后并发症发生情况,包括切口疼痛、切口感染、切口愈合不良、下肢深静脉血栓。(3)于术前、术后2d抽取患者肘静脉血3mL,经离心处理(3600 r/min离心8 min,离心半径8 cm),分离上清液,置于冰箱(-30℃)中待测。采用酶联免疫吸附试验检测白介素-6(Interleukin-6, IL-6)、C反应蛋白(C-reactive protein, CRP),采用放射免疫法检测皮质醇(Cortisol, Cor),试剂盒均购自上海基免生物科技有限公司,严格遵守试剂盒说明书进行操作。(4)术后采用门诊复查或电话、微信等形式随访1年,于术前、术后1年采用女性性功能指数量表(FSFI)^[7]评价两组患者生活质量,其中FSFI总分36分,分数越高,性生活质量越好。(5)通过记录两组患者阴道顶端脱垂、压力性尿失禁、性生活质量降低、阴道前后壁膨出等发生率来评估盆底功能。

1.4 统计学方法

采用SPSS25.0软件进行统计分析。计数资料以率的形式表示,采用卡方检验。计量资料以($\bar{x} \pm s$)的形式表示,采用t检验。以 $P<0.05$ 为差异有统计学意义。

2 结果

2.1 两组围术期指标比较

B组术后排气时间、住院时间、手术时间、术后下床时间短于A组,术中出血量少于A组($P<0.05$);详见表1。

表1 两组围术期指标比较($\bar{x} \pm s$)

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

Groups	Operative time(min)	Intraoperative hemorrhage(mL)	Postoperative exhaust time(h)	Time of getting out of bed after operation(h)	Length of stay(d)
Group A(n=38)	76.22±6.19	95.67±6.36	23.82±2.63	2.27±0.41	8.90±0.73
Group B (n=40)	57.95±7.26	78.13±7.39	16.97±2.54	1.48±0.39	6.92±0.68
t	11.930	11.209	11.701	8.722	12.402
P	0.000	0.000	0.000	0.000	0.000

2.2 两组患者炎症应激反应指标比较

两组术前IL-6、CRP、Cor比较差异无统计学意义($P>0.05$);两组术后2d的IL-6、CRP、Cor均升高,但B组低于A组($P<0.05$);详见表2。

2.3 两组患者盆底功能比较

B组患者盆底功能障碍发生率为12.50%(5/40),低于A组的36.84%(14/38)($P<0.05$);详见表3。

2.4 性生活质量比较

A 组术前 FSFI 评分为(17.25±2.23)分,术后 1 年 FSFI 评分为(26.24±3.19)分;B 组术前 FSFI 评分为(17.14±2.26)分,术后 1 年 FSFI 评分为(31.72±2.11)分;两组患者术后 1 年 FSFI 评分均较术前增加($t_{A组}=14.238, P_{A组}=0.000; t_{B组}=28.465, P_{B组}=0.000$),且 B 组高于 A 组($t=8.991, P=0.000$)。

2.5 两组并发症发生率比较

A 组术后发生切口疼痛 4 例,切口感染 2 例,切口愈合不良 3 例,下肢深静脉血栓 2 例,并发症发生率为 28.95% (11/38);B 组术后发生切口疼痛 1 例,切口感染 1 例,切口愈合不良 1 例,下肢深静脉血栓 1 例,并发症发生率为 10.00% (4/40);B 组术后并发症发生率低于 A 组($\chi^2=4.509, P=0.034$)。

表 2 两组患者炎症应激反应指标比较($\bar{x}\pm s$)

Table 2 Comparison of inflammatory stress response indexes between the two groups ($\bar{x}\pm s$)

Groups	IL-6(ng/L)		CRP(mg/L)		Cor(ng/mL)	
	Before operation	Two days after operation	Before operation	Two days after operation	Before operation	Two days after operation
Group A(n=38)	9.69±1.32	43.62±4.27*	8.39±1.26	46.08±3.29*	456.79±27.36	676.43±36.69*
Group B (n=40)	9.73±1.41	24.56±5.25*	8.28±1.37	25.12±4.28*	454.83±23.42	541.64±27.17*
t	0.129	17.536	0.369	24.158	0.340	18.503
P	0.898	0.000	0.713	0.000	0.735	0.000

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

表 3 两组患者盆底功能比较【例(%)】

Table 3 Comparison of pelvic floor function between the two groups[(%)]

Groups	Prolapse of anterior and posterior wall of vagina	Prolapse of top of vagina	Reduced quality of sexual life	Stress urinary incontinence	Total incidence rate
Group A(n=38)	3(7.89)	4(10.53)	3(7.89)	4(10.53)	14(36.84)
Group B (n=40)	1(2.50)	2(5.00)	1(2.50)	1(2.50)	5(12.50)
χ^2				6.279	
P					

3 讨论

子宫良性肿瘤作为女性的常见疾病,主要是受到体内雌激素水平升高的刺激,进而引起子宫平滑肌异常增生^[8,9]。以往临床针对子宫良性肿瘤的治疗方法有手术治疗和保守治疗,由于保守治疗周期长,见效慢,故较多患者倾向于选择手术治疗^[10-12]。目前,全子宫切除的手术方式较多,包括开腹手术及阴式手术等,其中开腹手术是既往常用的手术方式,具有操作简便、器械和空间限制小等优势,在切除子宫良性肿瘤方面效果显著,然而该手术方式创伤较大、术后疼痛感强、并发症多,影响患者预后,同时开腹手术伤口易遗留瘢痕,影响患者身体美观性,增加身心负担^[13-15]。阴式手术相对于开腹手术而言,具有微创且不留伤口瘢痕的优势,受到了不少患者及临床工作者的欢迎^[16-18]。

本次研究结果中 B 组的围术期指标改善情况优于 A 组,由于开腹手术伤口较大,且术中可破坏盆腔支持结构,故术中出血量明显增加,导致术后恢复缓慢;而阴式手术符合微创理念,操作更为简便,加之术中多采用电刀切割止血,可减少出血量并缩短手术时间^[19-21]。由于女性盆底器官、韧带、神经、肌肉等共同组成一个整体,子宫良性肿瘤患者行手术时均需将子宫主韧带和宫颈切断,致使各组织的正常解剖结构受到破坏,故术后极易引起盆底功能受损^[22];此外,子宫切除后除了各组织的正常解剖结构受到破坏,还可导致阴道变短,宫颈润滑作用丧

失,性生活不适感较为明显,加之患者术后存在一定的心理创伤,对性生活也有一定抵触,进而影响其生活质量^[23-25]。本研究中 B 组患者盆底功能障碍发生率少于 A 组,生活质量优于 A 组,提示相较于开腹手术,阴式手术治疗应用于子宫良性肿瘤患者,效果显著。分析原因可能是因为阴式手术可全面了解腹腔、盆腔情况,在直视情况下可对盆腔粘连进行松解,对腹腔、盆腔各组织脏器影响较小,降低术后盆腔功能障碍的发生率,减轻其对患者生活质量的影响^[26-28]。既往研究结果显示^[29],术后严重的应激反应可引起心脏移植或免疫抑制,影响手术效果。CRP 是一种急性时相蛋白,对炎症反应具有调节作用;IL-6 是急性应激反应的炎性介质,可扩大炎症级联化;Cor 则是反映应激反应的具有较高灵敏度的指标。本研究中两组患者均表现出不同程度的炎性应激反应,但阴式手术患者的炎性应激反应明显更轻,这与阴式手术自身微创、对机体各脏器组织影响轻等密切相关^[30]。B 组术后并发症发生率低于 A 组,表明阴式手术安全有效,主要是因为开腹手术由于术中手术时间长,腹腔各脏器组织长时间与空气接触,增加术后并发症发生风险。值得注意的是,阴式手术操作复杂,对术者要求较高,且手术指征严格,临床需根据患者具体情况给予适合的手术治疗方案,以确保手术效果。

综上所述,与开腹手术相比,阴式手术应用于子宫良性肿瘤患者,可有效改善围术期指标、炎性应激反应、盆底功能及性

生活质量,减少并发症发生率。

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