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经腹腔镜实施结直肠癌根治术对高龄患者胃肠功能的影响*

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摘要 目的:探讨结直肠癌高龄患者经腹腔镜实施结直肠癌根治术对胃肠功能产生的影响。**方法:**选取 92 例接受结直肠癌根治术的结直肠癌患者,将其随机数字表法随机分为试验组和对照组两组,其中对照组患者均采用开腹手术进行治疗,而试验组患者则采取腹腔镜下结直肠癌根治术。观察比较两组患者的术中情况和术后的胃肠功能。**结果:**两组患者之间的淋巴结清扫数目和标本切除长度均无明显差异(均 $P>0.05$),试验组患者的术中出血量以及手术时间均低于对照组患者($t=10.394, P<0.05$; $t=6.983, P<0.05$)。胃泌素和胃动素水平和患者术后的肛门排气时间以及腹胀持续时间呈显著的负相关关系;试验组患者的术后肛门排气时间和腹胀持续时间均低于对照组患者,并且其胃泌素和胃动素含量均明显高于对照组患者(均 $P<0.05$)。**结论:**腹腔镜下结直肠癌根治术较开腹手术具有创伤小的优势,并且对于高龄结直肠癌患者术后的胃肠功能具有较好的恢复效果。

关键词:结直肠癌根治术;胃肠功能;腹腔镜;高龄患者

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Effects of Laparoscopic Radical Resection of Colorectal Cancer on Gastrointestinal Function in Elderly Patients with Colorectal Cancer*

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ABSTRACT Objective: To investigate the effect of laparoscopic radical resection of colorectal cancer on gastrointestinal function in elderly patients with colorectal cancer. **Methods:** 92 cases of patients with colorectal cancer received radical resection of rectal cancer surgery. All enrolled patients were divided into two groups according to the random number table method, the test group and the control group. The patients in control group were treated by open surgery, while those in experimental group had laparoscopic colorectal cancer radical surgery. Compare the intraoperative and postoperative gastrointestinal function between two groups. **Results:** Between the two groups, no significant differences were observed in the number of lymph node dissection and the length of resection specimens ($P>0.05$). The intraoperative bleeding and operation time were significantly lower in experimental group than in control group ($t=10.394, P<0.05$; $t=6.983, P<0.05$). Gastrin and motilin levels showed a significant negative correlation with the postoperative anal exhaustion time and abdominal distention duration. The postoperative anal exhaust time and abdominal distention duration were significantly shorter in experimental group than in control group, and the levels of gastrin and motilin were significantly higher in experimental group than in control group (all $P<0.05$). **Conclusion:** Laparoscopic radical surgery for colorectal cancer had advantage of minimal invasion as compared with open surgery. And it has a good recovery effect on gastrointestinal function after operation in elderly patients with colorectal cancer.

Key words: Radical resection of colorectal cancer; Gastrointestinal function; Laparoscope; Elderly patients

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前言

大肠癌包括直肠癌和结肠癌两种,是临床上较为常见的恶性肿瘤之一^[1]。而结直肠癌根治手术则是临床上对于结直肠癌患者的常规治疗方法,其中又包括有腹腔镜下手术和直接开腹手术两种术式^[2]。由于临床治疗经验提示直接开腹手术对于结直肠癌患者的术后胃肠功能恢复不利,因此我院选取了 92 例

患者参与本次研究,探讨结直肠癌高龄患者经腹腔镜实施结直肠癌根治术对胃肠功能产生的影响。

1 资料和方法

1.1 一般资料

选取我院于 2013 年 9 月至 2015 年 12 月期间收治的 92 例接受结直肠癌根治手术的结直肠癌患者,其中男性患者 51

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例,女性患者 41 例,所有患者年龄均处于 62 至 81 岁之间,平均年龄为(69.7± 6.3)岁;92 例患者中 TNM 分期为 II 期的患者有 52 例,III 期的患者有 40 例;所有患者肿瘤直径均处于 2 至 5 厘米之间,平均直径为(3.2± 0.5)厘米。按照随机数字表法将所有入选患者随机分为试验组和对照组两组,每组患者各 46 例,并且两组患者的一般资料比较差异均无统计学意义 ($P>0.05$),具有可比性。

1.2 纳入与排除标准

所有患者均经我院确诊为结直肠癌患者,并且均符合临床实施结直肠癌根治手术的指征^[9];经我院医学伦理委员会批准后,所有患者均知情同意并且自愿参与本次研究。排除已经接受过结直肠癌手术治疗的患者;排除有严重心、肝、肾等功能不全或其他高危疾病的患者;排除因各种原因不能配合本次研究进行到底的患者。

1.3 研究方法

对照组患者均进行全身麻醉,于腹正中做一 10 厘米左右的切口,进入腹腔后切开肠系膜并分离结肠癌所对应的肠段、清扫相应区域淋巴结,在与肿瘤相距 5 厘米处将肠管切断并使

用吻合器进行相应肠段的吻合^[9]。而观察组患者则在全身麻醉后利用四孔法形成气腹,在腹腔镜探头以及操作器械进入腹腔后,在腹腔镜的引导下进行和对照组同样的手术方法^[9]。观察两组患者的淋巴结清扫数目、术中出血量、切除标本长度以及手术所用时间等,同时观察比较两组患者术后的肛门排气时间和腹胀持续时间。在进行完手术后的第三天分别采集 3 mL 两组患者的外周血,并对其胃泌素和胃动素含量进行测定。

1.4 统计学方法

试验所得数据均用($\bar{x} \pm s$)形式表示,组间比较采用 t 检验,计数资料之间对比采用 χ^2 检验,以是否 $P<0.05$ 来比较差异是否具有统计学意义。

2 结果

2.1 比较两组患者的术中情况

根据我院对两组患者的术中资料进行统计分析,结果显示两组患者之间的淋巴结清扫数目和标本切除长度均无明显差异(均 $P>0.05$),试验组患者的术中出血量以及手术时间均显著低于对照组患者($t=10.394, P<0.05; t=6.983, P<0.05$)(表 1)。

表 1 比较两组患者的术中情况($\bar{x} \pm s, n=46$)

Table 1 Comparison of intraoperative situation of patients between two groups($\bar{x} \pm s, n=46$)

Groups	Operation time(min)	Amount of bleeding during	Specimen resection length	Total number of lymph
		operation(mL)	(cm)	node dissection
Control group	186.33± 25.38	97.39± 11.32	11.44± 2.34	13.29± 1.27
Experimental group	114.39± 18.30	48.39± 66.39	11.28± 1.93	13.29± 1.93
t	6.983	10.394	0.139	0.182
P	<0.05	<0.05	>0.05	>0.05

2.2 比较两组患者的胃肠功能恢复情况

根据我院对两组患者的术后胃肠功能进行测定比较,结果显示试验组患者的术后肛门排气时间和腹胀持续时间均显著

低于对照组患者,并且其胃泌素和胃动素含量均明显高于对照组患者(均 $P<0.05$)(表 2)。

表 2 比较两组患者的术后胃肠功能恢复情况($\bar{x} \pm s, n=46$)

Table 2 Comparison of postoperative recovery of gastrointestinal function between two groups($\bar{x} \pm s, n=46$)

Groups	Abdominal distension duration(d)	Anal exhaust time(d)	Gastrointestinal hormone($\mu\text{g/ml}$)	
			Motilin	Gastrin
Control group	4.92± 0.62	4.29± 0.55	57.32± 7.29	158.39± 25.21
Experimental group	3.28± 0.53	2.83± 0.32	78.39± 10.29	238.29± 42.19
t	5.283	5.983	6.837	7.294
P	<0.05	<0.05	<0.05	<0.05

2.3 分析胃肠功能恢复情况与胃泌素和胃动素含量的相关性

根据我院对胃泌素和胃动素含量与患者术后胃肠功能恢复情况进行单因素相关性分析,结果显示胃泌素和胃动素水平

和患者术后的肛门排气时间以及腹胀持续时间呈显著的负相关关系(表 3)。

表 3 胃肠功能恢复情况与胃泌素和胃动素含量的相关性分析结果

Table 3 Correlation of gastrointestinal function recovery and the contents of gastrin and motilin

Indexes	Gastrin			Motilin		
	Regression coefficient B	Coefficient of determination r^2	P	Regression coefficient B	Coefficient of determination r^2	P
Abdominal distension duration	-1.628	0.563	<0.05	-1.836	0.592	<0.05
Anal exhaust time	1.878	0.642	<0.05	-2.218	0.611	<0.05

3 讨论

临床上结肠癌是指出现于结肠部位的消化道恶性肿瘤,其发病率在胃肠道肿瘤中高居第三^[9]。而直肠癌则是指从患者齿状线到直肠乙状结肠交界处之间的肿瘤,也是消化道中最常见的恶性肿瘤之一,其整体发病率虽然比结肠癌和胃癌较低,但近年来依然存在逐年攀升的趋势^[7]。同时也因为直肠癌的解剖关系较为复杂,并且位置较为深入盆腔,因此临床手术治疗不易彻底,容易出现术后复发现象^[8]。目前对于直肠癌的病因和发病机制尚未明确,据有关资料显示,遗传因素、饮食习惯以及社会环境等都是引起直肠癌发病的有关因素^[9]。此外,直肠癌的高危因素还包括食物纤维摄入不足、直肠息肉以及动物脂肪和蛋白质摄入较高等;而结肠癌的主要病因则是纤维素摄入不足和高脂肪食谱,并且有结肠息肉的患者比常人更容易引发结肠癌^[10,11]。

临床早期直肠癌多无明显症状,当病情发展到一定程度时患者会出现便血、便秘、腹泻等一系列症状,其后开始大便变细,甚至会有排便梗阻和恶病质等症状,当肿瘤侵犯尿道、膀胱等周围脏器时则会有下肢水肿和尿路刺激征等现象出现;而结肠癌则会有腹胀、消化不良等临床症状,晚期还有可能出现腹腔积液和黄疸以及肝转移等现象^[12]。对于结直肠癌的常规治疗主要是以外科手术为主,并且以化疗和放疗作为辅助治疗以稳固疗效^[13]。其中外科手术治疗又包括姑息性治疗和根治性治疗两种,对于不能进行手术切除治疗的患者,临床通常采用全身化疗的方法,对于因部位转移而导致出血梗阻和疼痛的患者,临床则给予放疗、止痛药等姑息性治疗以缓解患者症状^[14,15]。

本次研究中对 92 例高龄结直肠癌患者根据随机对照原则分别采用直接开腹手术和腹腔镜下手术等根治性治疗。研究结果显示两组患者之间的淋巴结清扫数目和标本切除长度均无明显差异,但是试验组患者的术中出血量以及手术时间均显著低于对照组患者。由此提示了采用腹腔镜下手术治疗能够比直接开腹手术的创伤更小,并且能够更快更好地完成手术^[16]。此外,经我院分析,胃泌素和胃动素水平和患者术后的肛门排气时间以及腹胀持续时间呈显著的负相关关系。试验组患者的术后肛门排气时间和腹胀持续时间均显著低于对照组患者,并且其胃泌素和胃动素含量均明显高于对照组患者。提示了采用腹腔镜下手术有利于患者术后胃肠功能的恢复,其恢复效果显著高于直接开腹手术^[17-19]。据有关资料显示,临床上实施结直肠癌根治术会直接牵拉到消化道,使得患者的胃动素和胃泌素分泌异常,并且术前麻醉也会抑制 Mo 细胞和 G 细胞的分泌功能,从而影响患者术后的胃肠功能^[20,21]。通过本次研究发现,腹腔镜下手术不仅操作简单、创口小,而且在取得和开放式手术同等切除效果的同时还能使患者术后的胃肠功能恢复更快。

综上所述,腹腔镜下结直肠癌根治手术较开腹手术具有创伤小的优势,并且对于高龄结直肠癌患者术后的胃肠功能具有较好的恢复效果。

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