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· 专题研究 ·

高龄患者腹腔镜辅助结直肠癌切除术的临床疗效

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摘要

目的: 探讨高龄患者 (≥ 70 岁) 行腹腔镜辅助结直肠癌切除术的安全性和有效性。

方法: 根据纳入与排除标准, 前瞻性纳入 2012 年 1 月—2015 年 1 月收治的高龄结直肠癌患者 120 例, 将患者随机分为腹腔镜组和开腹手术组, 每组 60 例, 分别行腹腔镜辅助结直肠癌切除术和开腹结直肠癌切除术。比较两组患者的相关临床指标。

结果: 与开腹组比较, 腹腔镜组手术时间 (118.23 min vs. 120.85 min, $P=0.458$) 与淋巴结清扫数目 (18.12 枚 vs. 17.37 枚, $P=0.218$) 无统计学差异, 但术中出血量明显减少 (307.28 mL vs. 354.80 mL, $P=0.000$)、术后排气时间明显缩短 (38.27 h vs. 47.02 h, $P=0.000$)、住院时间明显缩短 (16.58 d vs. 20.07 d, $P=0.000$)。两组患者肠痿、皮下感染、吻合口痿、肠梗阻、尿路感染和肺部感染发生率差异均无统计学意义 (均 $P>0.05$)。两组患者术后 24 个月时复发率 (35.0% vs. 41.7%, $P=0.453$) 与病死率 (13.3% vs. 18.3%, $P=0.453$) 差异均无统计学意义。

结论: 高龄患者行腹腔镜辅助结直肠癌切除术安全有效, 值得进一步推广。

关键词

结直肠肿瘤; 腹腔镜; 老年人

中图分类号: R735.3

Clinical efficacy of laparoscopic-assisted resection of colorectal cancer in elderly patients

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Abstract

Objective: To investigate the safety and effectiveness of laparoscopic-assisted resection of colorectal cancer in elderly patients (≥ 70 years of age).

Methods: According to the inclusion and exclusion criteria, 120 elderly patients with colorectal cancer admitted between January 2012 and January 2015 were prospectively enrolled, and randomly designated to laparoscopic group and laparotomy group with 60 cases in each group, undergoing laparoscopic-assisted or open resection of colorectal cancer, respectively. The main clinical variables between the two groups of patients were compared.

Results: In laparoscopic group compared with laparotomy group, the operative time (118.23 min vs. 120.85 min, $P=0.458$) and number of resected lymph nodes (18.12 vs. 17.37, $P=0.218$) showed no significant difference,

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but the intraoperative blood loss (307.28 mL vs. 354.80 mL, $P=0.000$), time to first postoperative flatus (38.27 h vs. 47.02 h, $P=0.000$) and length of hospital stay (16.58 d vs. 20.07 d, $P=0.000$) were all significantly reduced. No statistical difference was noted in incidence of postoperative complications that included intestinal fistula, subcutaneous infection, anastomotic fistula, intestinal obstruction, urinary tract infection and lung infection (all $P>0.05$). The recurrence rate (35.0% vs. 41.7%, $P=0.453$) and mortality rate (13.3% vs. 18.3%, $P=0.453$) at postoperative 24 months had no statistical difference between the two groups.

Conclusion: Performance of laparoscopic-assisted resection of colorectal cancer in elderly patients is safe and effective, and it is recommended to be used.

Key words Colorectal Neoplasms; Laparoscopes; Aged

CLC number: R735.3

随着人口的老龄化和饮食结构的变化等, 高龄直肠癌患者在全世界范围内发病率和发病人数呈逐年增高趋势, 70岁以上的高龄患者占了结直肠癌患者的30%以上^[1-3]。结直肠癌传统的治疗方式为开腹结直肠癌切除术^[4], 而自19世纪90年以来, 腹腔镜手术被广泛应用于结直肠癌患者的治疗, 在中青年患者中的研究显示与开腹手术相比, 腹腔镜辅助结直肠癌切除术显著降低了患者术后伤口疼痛时间, 减少了患者住院时间, 并最终改善了患者术后生活质量^[5-6]。且随着医疗技术的发展, 目前使用腹腔镜手术治疗结直肠癌患者的技术已逐渐发展成熟^[7]。然而, 高龄结直肠癌患者与中青年患者临床预后和治疗方法存在明显不同, 由于高龄患者心肺功能相对较差, 术中气腹等对患者影响较大。由于高龄结直肠癌患者术后并发症高、术后恢复慢和对手术耐受性差等特点, 同一治疗方法在中年和高龄患者中的治疗可出现不同结果, 2011年Roscio等^[8]研究显示与中年患者相比, 腹腔镜下结直肠癌手术的高龄患者术后并发症显著增加。可惜的是, 关于腹腔镜手术在高龄患者中临床应用的研究尚缺乏, 因此比较腹腔镜辅助和开腹结直肠癌切除术在高龄患者的安全性和有效性, 具有一定的临床意义。

1 资料与方法

1.1 一般资料

前瞻性收集2012年1月至2015年1月我院收治的高龄结直肠癌患者, 纳入标准: (1) 结直肠癌; (2) 年龄 ≥ 70 岁; (3) 病理诊断为结直肠癌; (4) TNM分期为II或III期 (NCCN标准); (5) 肿瘤

距肛缘10 cm以上; (6) 同意参与本研究。排除标准: (1) 脏器功能不全; (2) 凝血功能障碍; (3) 治疗期间转院或放弃治疗; (4) 随访期间失访; (5) 术前检查示远处转移; (6) 既往腹部手术史; (7) 5年内其他肿瘤病史。

2012年1月—2015年1月期间, 我院共收集结肠癌患者321例, 其中符合纳入标准的患者165例, 但是1例患者合并慢性肾功能不全, 2例合并中重度慢性阻塞性肺疾病, 2例合并心功能不全, 2例合并凝血功能障碍, 4例治疗期间放弃治疗, 1例术前检查示肝转移, 1例3年前胃癌病史, 32例既往腹部手术史, 因此最终共纳入结直肠癌患者120例。将患者按照随机数字表原则分为腹腔镜组 ($n=60$) 和开腹组 ($n=60$)。腹腔镜术组患者男43例, 女17例; 年龄范围为70~85岁, 平均年龄为 (76.84 ± 4.64) 岁; 32例TNM分期为II期, 28例临床分期为III期; 结肠癌35例, 直肠癌25例; 肿瘤大小 ≥ 5 cm的25例, < 5 cm的35例; 组织分化程度为高分化的34例, 中分化18例, 低分化的8例。开腹组患者男40例, 女20例; 年龄范围为70~86岁, 平均年龄为 (76.42 ± 4.73) 岁; 34例TNM分期为II期, 26例临床分期为III期; 结肠癌33例, 直肠癌27例; 肿瘤大小 ≥ 5 cm的23例, < 5 cm的37例; 组织分化程度为高分化的31例, 中分化22例, 低分化的7例。两组患者的性别、年龄、临床TNM分期、肿瘤大小、肿瘤部位和分化程度等差异均无统计学意义 (均 $P>0.05$)。具有可比性。

所有患者均知情同意并签署知情同意书, 本研究通过我院伦理委员会批准。

1.2 治疗方法

腹腔镜组:患者入院后完善术前相关检验检查,如无手术禁忌证,进行腹腔镜辅助结直肠癌切除术,术后给予留置导尿管、胃肠减压、抗感染、抑酸抑酶、镇痛等对症支持治疗,待患者情况稳定后8周内给予FOLFOX6化疗。开腹组:采用开腹结直肠癌切除术,其余同腹腔镜手术组。

1.3 数据收集

主要观察指标为手术时间、淋巴结清扫数目、术中出血量、术后排气时间、住院时间、肠痿、皮下感染、吻合口痿、肠梗阻、尿路感染、肺部感染和24个月时复发率及病死率,总随访时间为24个月。

1.4 统计学处理

采用SPSS 22.0完成统计分析, $P < 0.05$ 为差异有统计学意义。经检测,手术时间、淋巴结清扫数目、术中出血量、术后排气时间、住院时间等均符合正态分布,使用 t 检验进行统计分析并以均值 \pm 标准差 ($\bar{x} \pm s$) 表示;肠痿、皮下感染、吻合口痿、肠梗阻、尿路感染、肺部感染和病死率等分类资料使用 χ^2 检验进行统计分析并以百分率 (%) 表示。

2 结果

2.1 两组患者手术情况比较

腹腔镜组与开腹组患者手术时间[(118.23 \pm 18.90) min vs. (120.85 \pm 19.57) min, $P=0.458$] 和淋巴结清扫数目[(18.12 \pm 3.50) 枚 vs. (17.37 \pm 3.11) 枚, $P=0.218$] 均无统计学意义,但腹腔镜组患者术中出血量明显低于开腹手术组[(307.28 \pm 60.36) mL vs. (354.80 \pm 53.97) mL, $P=0.000$] (表1)。

表1 两组患者手术情况比较 ($n=60, \bar{x} \pm s$)

Table 1 Comparison of the surgical variables between the two groups of patients ($n=60, \bar{x} \pm s$)

组别	手术时间 (min)	淋巴结清扫数 (枚)	术中出血量 (mL)
腹腔镜组	118.23 \pm 18.90	18.12 \pm 3.50	307.28 \pm 60.36
开腹组	120.85 \pm 19.57	17.37 \pm 3.11	354.80 \pm 53.97
t	0.745	1.239	4.545
P	0.458	0.218	0.000

2.2 两组患者肠道功能恢复情况

与开腹手术组比较,腹腔镜手术组患者术后排气时间明显缩短[(38.27 \pm 9.50) h vs. (47.02 \pm 9.57) h, $P=0.000$] (图1)。

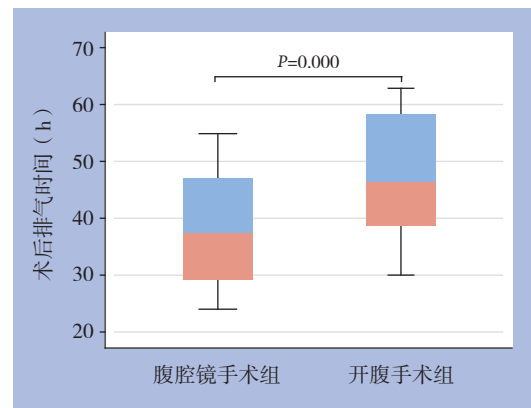


图1 两组患者术后排气时间比较

Figure 1 Comparison of time to first postoperative flatus of the two groups of patients

2.3 两组患者术后并发症比较

腹腔镜手术组患者肠痿、皮下感染、吻合口痿、肠梗阻、尿路感染和肺部感染发生率分别为0.0%、0.0%、0.0%、0.0%、1.7%和1.7%,与对照组的1.7%、5.0%、0.0%、1.7%、8.3%和5.0%等相比差异均无统计学意义(均 $P > 0.05$) (表2)。

表2 两组患者术后并发症比较 [$n=60, n (%)$]

Table 2 Comparison of postoperative complications between the two groups of patients [$n=60, n (%)$]

类别	肠痿	皮下感染	吻合口痿	肠梗阻	尿路感染	肺部感染
腹腔镜手术组	0 (0.0)	0 (0.00)	0 (0.0)	0 (0.0)	1 (1.7)	1 (1.7)
开腹手术组	1 (1.7)	3 (5.0)	0 (0.0)	1 (1.7)	5 (8.3)	3 (5.0)
χ^2	0.000	1.368	—	0.000	1.579	0.259
P	1.000	0.242	—	1.000	0.209	0.611

2.4 两组患者住院时间临床预后比较

与开腹组比较,腹腔镜手术组患者住院时间明显缩短[(16.58 ± 3.06) d vs. (20.07 ± 3.14) d, $P=0.000$];两组患者术后24个月时复发率(35.0% vs. 41.7% , $P=0.453$)和病死率(13.3% vs. 18.3% , $P=0.453$)差异均无统计学意义(表3)。

表3 两组患者住院时间与临床预后比较($n=60$)

Table 3 Comparison of length of hospital stay and clinical outcomes between the two groups of patients ($n=60$)

组别	住院时间 (d, $\bar{x} \pm s$)	复发率 (%)	24个月病死率 (%)
腹腔镜手术组	16.58 ± 3.06	35.0	13.3
开腹手术组	20.07 ± 3.14	41.7	18.3
t/χ^2	6.175	0.564	0.563
P	0.000	0.453	0.453

3 讨 论

随着微创技术的发展,腹腔镜被广泛使用于临床治疗结直肠癌。Wang等^[9]研究纳入了68例结直肠癌患者,其中腹腔镜辅助下结直肠癌切除术患者73例,开腹手术结直肠癌切除术48例,结果显示腹腔镜下结直肠癌切除术显著降低了患者手术时间、住院时间(均 $P<0.05$),但两组患者术后并发症和远期预后等差异无统计学意义($P>0.05$)^[9]。2015年Kim等^[10]研究纳入了280例IV期结直肠癌患者,同样显示腹腔镜下结直肠癌切除术较开腹手术是安全有效的。然而上述研究均未针对高龄患者进行深一步的研究,由于高龄患者心肺功能较差等原因,可导致结果不同。为探讨腹腔镜下结直肠癌切除术对高龄患者的影响,笔者设计了本研究并纳入了120例高龄结直肠癌患者。结果显示腹腔镜下结直肠癌切除术对高龄患者而言是安全的,并未增加患者手术时间和术后并发症;腹腔镜下结直肠癌切除术对高龄患者而言是有效的,表现为与开腹手术组相比,腹腔镜手术组患者术中出血量显著减少、术后排气时间显著缩短、住院时间显著缩短。2015年Moug等^[11]为探讨腹腔镜手术在高龄患者中的安全性和有效性,进行了一项Meta分析。该研究仅纳入年龄 ≥ 70 岁的高龄结直肠癌患者,结果显示腹腔镜下结直肠癌切除术显著降低了患者术后并发症(36.7% vs. 50.6% , $P<0.05$)、显著降低了患者

住院时间(8 d vs. 10 d, $P<0.05$)。该研究结果支持本研究,但本研究未观察到两组患者病例数是否存在差异,这可能是本研究病例数相对较少造成的,这是本研究的一个不足之处。2014年Fujii等^[12]研究纳入了100例75岁以上的高龄结直肠癌患者,结果同样显示腹腔镜下结直肠癌手术显著降低了患者手术时间、术后并发症。而2015年Hinoi等^[13]研究了腹腔镜下结直肠癌切除术对80岁以上高龄患者的影响,结果同样显示腹腔镜下结直肠癌切除术显著降低了患者术后并发症。Moon等^[14]研究同样显示腹腔镜下结直肠癌切除术虽然无助于降低患者术后复发率和病死率,但是降低了患者术后并发症,最近2年取得类似结果的研究尚有很多^[15-20]。

综上所述,腹腔镜辅助下结直肠癌切除术在高龄患者中是安全有效的,值得进一步推广。

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