

doi: 10.13241/j.cnki.pmb.2014.13.024

腹腔镜行肝部分切除术的临床效果研究 *

祝建勇¹ 邱宝安¹ 郭晓东² 夏念信¹ 杨英祥¹ 刘鹏¹ 安阳¹ 吴印涛¹

(1 海军总医院肝胆外科 北京 100048;2 解放军第 302 医院 北京 100039)

摘要 目的:随着医疗技术的不断发展,腹腔镜作为一种新兴的微创治疗方法被广泛应用于临床手术中,且效果显著。我们通过观察腹腔镜技术用于老年患者进行肝部分切除术的临床效果,并与传统开腹手术进行对比,探讨腹腔镜手术治疗肝肿瘤的优势,为后续的临床研究提供依据。**方法:**采用回顾性分析的方法,选取 2011 年 1 月至 2012 年 12 月在我院接受肝部分切除术的 101 例老年肝肿瘤患者的临床资料,根据手术方式将研究对象分为观察组(39 例)和对照组(62 例),观察组采取腹腔镜手术治疗,而对照组则采用传统开腹手术治疗。比较两组患者的手术时间、术中出血量、术后排气时间、术后并发症、平均住院时间、住院费用等,分析两种手术方式的临床效果。**结果:**观察组患者的手术时间、术中平均出血量、术后排气时间、平均住院时间均明显优于对照组患者($P<0.05$);观察组患者术后无 1 例并发症,对照组为 20 例,观察组患者术后并发症的发生率低于对照组,差异具有统计学意义($P<0.05$);两组患者的住院费用无明显差异($P>0.05$)。**结论:**腹腔镜手术具有创伤小、术中出血少、术后恢复快等优点,最大程度的减少手术对患者机体造成的损伤,适合身体机能逐渐衰退、手术耐受较差的老年患者采用。腹腔镜肝部分切除术的效果显著,值得临床推广应用。

关键词:肝部分切除术;腹腔镜手术;开腹手术;老年患者**中图分类号:**R735.7 **文献标识码:**A **文章编号:**1673-6273(2014)13-2491-03

Clinical Efficacy of Celoscope on the Treatment of Partial Hepatectomy*

ZHU Jian-yong¹, QIU Bao-an¹, GUO Xiao-dong², XIA Nian-xin¹, YANG Ying-xiang¹, LIU Peng¹, AN Yang¹, WU Yin-tao¹

(1 General Hospital of Navy, Beijing, 100048, China; 2 302 Hospital of PLA, Beijing, 100039, China)

ABSTRACT Objective: With the development of medical technology, the celoscope, as the burgeoning minimally invasive method, has been widely applied on the clinical field with obvious effects. We are devoted to providing a few clinical statistics for the subsequent research by observing and comparing the clinical effect between the celoscope and the conventional surgery on the treatment of partial hepatectomy for the elder patients. **Methods:** A retrospective analysis was performed on the clinical data of 101 elderly patients with liver tumors who were accepted the surgery for partial hepatectomy in our hospital from January 2011 to December 2012. According to different operation methods, the patients were divided into two groups. The patients in the observation group were treated by the celoscope, while patients in the control group were treated by the conventional open surgery. Then the operation time, blood loss, exsufflation time, incidence of complications, hospitalization and costs for treatment were observed and compared between two groups. **Results:** The operation time, blood loss, exsufflation time and hospitalization of patients in the observation group were obviously shorter than those of the patients in the control group ($P<0.05$). No complication was found in the observation group, which was better than that of the control group ($P<0.05$). There was no statistically significant difference about the costs for operation ($P>0.05$). **Conclusions:** With the advantages of the minimally invasive trauma, less blood loss, quicker recovery and so on, the celoscope is suitable for the elder patients who were intolerant to the operation because of the decline of their body functions which makes contribution to minimize the damages brought by the operation. It is worthy of further promotion on the partial hepatectomy for the obvious efficacy it works.

Key words: Partial hepatectomy; Celoscope; Open surgery; Elderly**Chinese Library Classification(CLC):** R735.7 **Document code:** A**Article ID:** 1673-6273(2014)13-2491-03

前言

肝癌(hepatocellular carcinoma)是我国最常见的恶性肿瘤之一,发病隐匿、进展快、预后差且死亡率高^[1]。近年来,随着我国老龄化日益严重,老年人群肝肿瘤的患病率也越来越高^[2]。对于

肿瘤病变较小或不适宜做肝叶切除或半肝切除的患者,临通常采取肝部分切除术的方法进行治疗^[3]。肝部分切除术(Partial hepatectomy)就是将通向病变部位的血管分支和胆管切断并结扎,以防止肿瘤细胞的增殖而加重患者的病情^[4]。传统的治疗手段是通过开腹手术进行,但对于身体机能退化且同时合并

* 基金项目:国家自然科学基金青年科学基金项目(30901795)

作者简介:祝建勇(1978-),男,主治医师,博士,主要从事肝胆胰脾、肝移植的基础与临床研究等

(收稿日期:2013-10-29 接受日期: 2013-11-19)

慢性心肺疾病、糖尿病等并发症的老年患者来说,该手术方法创伤性大,不利于老年人术后恢复,容易出现切口脂肪液化、尿潴留等术后并发症^[5-7]。随着腹腔镜技术被广泛的应用于临床并取得显著的效果,该技术以其手术创伤小、手术时间短及术后恢复快等优势逐渐成为临床手术的金标准^[8-9]。本文通过腹腔镜下老年肝肿瘤患者肝部分切除术的临床效果与开腹手术进行对比,探讨该技术的特点及优势,为临床治疗提供参考。现将结果报道如下:

1 资料与方法

1.1 一般资料

选取 2011 年 1 月至 2012 年 12 月期间,我院收治的老年肝肿瘤接受肝部分切除患者 101 例,分为观察组(39 例)和对照组(62 例)。观察组患者平均年龄为(60.85±6.17)岁,对照组为(61.24±5.92)岁;观察组 ALT:(30.51±3.24)U/L, ALB:(39.88±2.44)g/L, TBIL:(13.29±1.24)μmol/L。对照组 ALT:(31.09±4.29)U/L, ALB:(38.98±2.92)g/L, TBIL:(13.67±1.62)μmol/L。两组患者的年龄及术前各项指标检查结果均无明显差异,具有可比性。

1.2 选取标准

患者入院后接受详细检查,排除恶性肿瘤,积极治疗并发症,入选条件^[10]:首次接受肝切除术;肝功能分级在 Child B 级以上,且术后残肝能够满足生理需要;病灶邻近肝包膜,长径≤12 cm;肝癌患者心、肺等重要脏器无器质性病变;观察组患者无上腹部手术史。

1.3 手术方法

对照组患者采用传统开腹手术;观察组患者采取腹腔镜手术,具体操作为:患者仰卧,采用气管内插管全身麻醉复合硬膜

外麻醉,CO₂气腹压维持≤12 mmHg,利用腹腔镜超声探头探查病灶位置,离断肝圆韧带,根据病灶部位游离肝脏,距病灶边缘 1-2 cm 处标记肝切除线,利用超声刀由前向后、由浅入深切除病灶,待双极电凝彻底止血后取无损伤缝线缝合切口,放置引流管。术中注意记录两组患者的手术时间及出血量。

1.4 观察指标

观察两组患者的手术时间、术中出血量、术后排气时间、术后并发症、平均住院日、住院费用等情况。

1.5 统计学处理

数据采用 SPSS17.0 软件进行分析处理,计量资料采用 T 检验,计数资料采用 χ^2 ,以 P<0.05 为差异具有统计学意义。

2 结果

手术均顺利完成,无 1 例死亡。观察组手术时间为(110.14±11.14) min,对照组为(148.02±15.22) min,观察组明显比对照组手术耗时短(P<0.05);观察组平均出血量为(156.18±19.81) ml,对照组为(301.57±29.64) ml,观察组比对照组术中出血量少(P<0.05);观察组患者排气时间为术后第(1.22±0.14)天,对照组为(3.37±0.26)天,观察组术后恢复情况优于对照组(P<0.05);观察组患者住院时长为(6.39±0.60)天,对照组为(12.18±1.91)天,观察组明显比对照组住院时间短(P<0.05);观察组术后无并发症出现,对照组出现 20 例(32.26%)并发症:肺部感染 5 例、胸腔积液 4 例、切口血肿/感染 3 例、腹腔积液 4 例、胆漏 2 例、下肢深静脉血栓 2 例、戳孔/切口种植 1 例。比较两组患者的手术效果,差异显著,具有统计学意义(P<0.05)。两组患者的手术治疗费用相当,无明显差异(P>0.05)。见表 1。

表 1 两组患者的临床指标对比($\bar{x}\pm s$)

Table 1 Comparison of the clinical indicators of patients between two groups

观察指标 Indicators	分组 Group		T(x ²)	P
	观察组 Observation	对照组 Control		
手术时间 Operation time	110.14±11.14	148.02±15.22	0.818	0.031
术中出血量 Blood loss	156.18±19.81	301.57±29.64	3.812	0.039
排气时间 Exsufflation time	1.22±0.14	3.37±0.26	9.736	0.048
术后并发症 Complications	0	20(32.26%)	5.059	0.034
住院时长 Hospitalization	6.39±0.60	12.18±1.91	10.077	0.017
手术费用 Costs	39768±3248	38672±3285	-1.297	0.875

3 讨论

外科的发展以手术技术的提高为里程碑,开腹手术一直是肝脏肿瘤的有效治疗方法,但这种开放手术创伤大、影响术后恢复的缺点一直是肝胆外科医生的担忧。随着腹腔镜的发展、新的腹腔镜专用器械和设备的出现,腹腔镜下肝脏手术经验得到不断积累,医师的操作技巧也在不断提高,近年来越来越多的医院开始积极探索,逐步推进腹腔镜下肝部分切除术的应用^[11-13]。从解剖学角度看,肝脏具备双重血供,血运丰富,所以腹腔镜下不便于肝门血流的阻断,因此开展此腹腔镜下肝部分切除

术有一定难度^[18]。老年患者因年龄及身体机能的影响,其手术难度大、风险高、围术期处理和手术操作要求更高^[20]。

本研究中,观察组的手术时间明显少于对照组,说明腹腔镜手术的创口小,切口缝合时间短;而对照组切口的开启及缝合时间较长,手术耗时长。观察组患者的术中平均出血量约为对照组患者出血量的一半。分析原因可能与手术时间有关,因腹腔镜手术耗时短,所有患者术中出血量就明显低于对照组,这提示我们:腹腔镜手术能够减少患者的术中出血量,从而尽量避免术中大出血或死亡的情况发生。我们的研究结果显示,与对照组采取传统开腹手术的患者相比,观察组患者采用腹腔

镜手术造成的创伤小、术后排气时间早、并发症的发生率低、术后住院时间短。这一结果说明,腹腔镜手术具有创伤小、并发症少、安全、术后康复快等优势。两组的治疗费用无明显差异。据相关文献报道,虽然腹腔镜仪器成本较高,但其术后护肝及营养支持药物等相关费用较低,而传统开腹手术虽然成本低,但术后护肝及营养支持药物等费用则较高。所以,腹腔镜与传统开腹手术的总体治疗费用相当,没有明显差异^[14,15]。

由于老年人各器官储备功能较差,手术时不仅要注重操作过程,更要做好围手术的管理。术前要做好手术风险评估,严格掌握手术适应证,若患者为手术禁忌人群,宜采用保守方法进行治疗;根据患者自身的并发症设计对应的手术方案,如合并感染的患者要准备抗感染的治疗方案;合并糖尿病的患者要准备控制血糖的治疗方案等^[16,19]。手术时尽量减少患者出血量,大多数符合肝部分切除的患者宜采用肝叶不规则切除术,尽可能保留较多的患者自身正常的肝组织,以利于患者康复。术后加强营养支持,密切观察生命指征及引流情况,积极预防并发症^[17]。

综上所述,腹腔镜肝部分切除术的临床效果显著,其特点及优势已得到很大肯定,值得推广应用,但仍需在实践中不断探索,很多数据还有待进一步研究。随着科技进步和手术技术的改进,腹腔镜手术技术的发展前景将更加广阔。

参考文献(References)

- [1] Peng ZW, Liu FR, Ye S, et al. Radiofrequency ablation versus open hepatic resection for elderly patients (> 65 years) with very early or early hepatocellular carcinoma [J]. Cancer, 2013,6 [Epub ahead of print]
- [2] Suda T, Nagashima A, Takahashi S, et al. Active treatments are a rational approach for hepatocellular carcinoma in elderly patients[J]. World J Gastroenterol,2013,19(24):3831-3840
- [3] Guo X, Xiong L, Zou L, et al. Upregulation of bone morphogenetic protein 4 is associated with poor prognosis in patients with hepatocellular carcinoma[J]. Pathol Oncol Res,2012,18(3):635-640
- [4] 董晓刚,唐津天,晏冬,等.半肝及肝三叶切除 25 例临床分析[J].现代生物医学进展,2012,12(11):2117-2119
Dong Xiao-gang, Tang Jin-tian, Yan Dong, et al. The Clinical Study of Trisegmentectomy and Hemihepatectomy for 25 Cases with Liver Disease[J]. Progress in Modern Biomedicine,2012,12(11):2117-2119
- [5] Cannon RM, Scoggins CR, Callender GG, et al. Financial comparison of laparoscopic versus open hepatic resection using deviation-based cost modeling[J]. Ann Surg Oncol,2013,20(9):2887-2892
- [6] Slakey DP, Simms E, Drew B, et al. Complications of liver resection: laparoscopic versus open procedures[J]. JSLS,2013,17(1):46-55
- [7] Guo X, Yang M, Gu H, et al. Decreased expression of SOX6 confers a poor prognosis in hepatocellular carcinoma [J]. Cancer Epidemiol, 2013,31: S1877-7821(13)00078-7
- [8] 柳己海,李明杰,郑直,等.腹腔镜肝癌切除术与开放式肝癌切除术的疗效比较研究[J].现代生物医学进展,2011,11(18):3504-3506
Liu Ji-hai, Li Ming-jie, Zheng Zhi, et al. Comparative Study on Curative Effect of Laparoscopic Resection and Open Surgery for Hepatocellular Carcinoma [J]. Progress in Modern Biomedicine, 2011,11(18):3504-3506
- [9] 韩璐,戴广海,汪进良,等.70岁以上的老年原发性肝癌患者临床特点[J].现代生物医学进展,2012,12(12):2322-2326
Han Lu, Dai Guang-hai, Wang Jin-liang, et al. Clinical Features and Prognosis of Primary Liver Cancer in Elderly Patients Over 70 Years Old[J]. Progress in Modern Biomedicine,2012,12(12):2322-2326
- [10] Shetty GS, You YK, Choi HJ, et al. Extending the limitations of liver surgery: outcomes of initial human experience in a high-volume center performing single-port laparoscopic liver resection for hepatocellular carcinoma[J]. Surg Endosc,2012,26(6):1602-1608
- [11] Inoue Y, Hayashi M, Tanaka R, et al. Short-term results of laparoscopic versus open liver resection for liver metastasis from colorectal cancer: a comparative study [J]. Am Surg,2013,79 (5): 495-501
- [12] Qiu J, Chen S, Pankaj P, et al. Laparoscopic hepatectomy for hepatic colorectal metastases--a retrospective comparative cohort analysis and literature review[J]. PLoS One,2013,8(3):60153
- [13] Zhou YM, Shao WY, Zhao YF, et al. Meta-analysis of laparoscopic versus open resection for hepatocellular carcinoma [J]. Dig Dis Sci, 2011,56(7):1937-1943
- [14] Afaneh C, Kluger MD. Laparoscopic liver resection: lessons at the end of the second decade[J]. Semin Liver Dis,2013,33(3):226-235
- [15] Lurje G, Lesurtel M, Clavien PA. Multimodal treatment strategies in patients undergoing surgery for hepatocellular carcinoma [J]. Dig Liver Dis,2013,31(1):112-7
- [16] Reddy SK, Tsung A, Geller DA. Laparoscopic liver resection [J]. World J Surg,2011,35(7):1478-1486
- [17] Pearce NW, Di Fabio F, Teng MJ, et al. Laparoscopic right hepatectomy: a challenging, but feasible, safe and efficient procedure [J]. Am J Surg, 2011, 202(5): 52-58
- [18] Lai EC, Yang GP, Tang CN. Robot-assisted laparoscopic liver resection for hepatocellular carcinoma: short-term outcome [J]. Am J Surg,2013,205(6):697-702
- [19] Cheung TT, Poon RT, Yuen WK, et al. Long-term survival analysis of pure laparoscopic versus open hepatectomy for hepatocellular carcinoma in patients with cirrhosis: a single-center experience [J]. Ann Surg,2013,257(3):506-511
- [20] Santambrogio R, Aldrighetti L, Barabino M, et al. Laparoscopic liver resections for hepatocellular carcinoma. Is it a feasible option for patients with liver cirrhosis [J]. Langenbecks Arch Surg,2009,394(2): 255-264