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脾动脉结扎联合肝癌切除术治疗肝癌并门静脉高压症临床研究

盛 涛 李敬东 徐 建 李 强 杨 刚

(川北医学院附属医院普外三科 四川 南充 637000)

摘要 目的: 探讨脾动脉结扎联合肝癌切除术对肝癌并门静脉高压症的治疗效果和临床应用的价值。**方法:** 对2008年10月至2013年10月期间我院收治的84例肝癌并门静脉高压症患者的资料进行回顾性分析,其中脾动脉结扎联合肝癌切除术的患者50例为研究组,患者34例行肝癌切除及脾切断术为对照组。比较两组治疗效果及患者术前、术后情况。**结果:** 研究组术前白细胞计数、血小板计数、红细胞计数为 $(3.1 \pm 0.9) \times 10^9/L$ 、 $(58.6 \pm 12.7) \times 10^9/L$ 、 $(3.4 \pm 0.4) \times 10^9/L$,术后2周白细胞计数、血小板计数、红细胞计数分别为 $(5.9 \pm 1.5) \times 10^9/L$ 、 $(140.3 \pm 50.1) \times 10^9/L$ 、 $(3.6 \pm 0.7) \times 10^9/L$;对照组为术前白细胞计数、血小板计数、红细胞计数为 $(2.8 \pm 1.2) \times 10^9/L$ 、 $(45.8 \pm 20.5) \times 10^9/L$ 、 $(3.4 \pm 0.4) \times 10^9/L$,术后2周白细胞计数、血小板计数、红细胞计数为 $(6.2 \pm 0.7) \times 10^9/L$ 、 $(172.5 \pm 32.7) \times 10^9/L$ 、 $(3.6 \pm 0.3) \times 10^9/L$ 。研究组与对照组相比,术后2周白细胞计数、红细胞计数相比差异无统计学意义($P > 0.05$),但术后2周血小板计数研究组低于对照组,差异有统计学意义($P < 0.05$)。研究组术前与术后的白细胞计数、血小板计数、红细胞计数相比,差异均有统计学意义($P < 0.05$)。研究组有17例患者出现术后并发症,占16.0%;对照组有20例患者出现术后并发症,占38.2%;两组对比差异有统计学意义($P < 0.05$)。**结论:** 根据病情合理选择使用脾动脉结扎联合肝癌切除术治疗肝癌并门静脉高压症,可以有效治疗肝癌和脾功能亢进,促进肝功能恢复,对延长原发性肝癌合并肝硬化脾功能亢进患者的生存时间,提高生活质量,具有重要意义。

关键词: 脾动脉结扎;肝癌切除术;肝癌;门静脉高压症

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The Clinical Study of Splenic Artery Ligation Combined with Liver Resection in treating Hepatocellular Carcinoma with Portal Hypertension

SHENG Tao, LI Jing-dong, XU Jian, LI Qiang, YANG Gang

(Third department of general surgery, Affiliated Hospital of Chuanbei Medical College, Nanchong, Sichuan, 637000, China)

ABSTRACT Objective: To investigate the clinical value of splenic artery ligation combined with hepatic resection for the treatment of hepatocellular carcinoma with portal hypertension. **Methods:** 84 cases of HCC patients with portal hypertension from October 2008 to October 2013 in our hospital were analyzed retrospectively, 50 cases of splenic artery ligation combined with hepatic resection operation were in the study group, 34 patients underwent hepatectomy and splenectomy and devascularization were in the control group. Effects and postoperative situation were compared between groups. **Results:** The white blood cell count, platelet count, erythrocyte count in study group were $(3.1 \pm 0.9) \times 10^9/L$, $(58.6 \pm 12.7) \times 10^9/L$, $(3.4 \pm 0.4) \times 10^9/L$, 2 weeks after the operation, the white blood cell count, platelet count, erythrocyte counts were $(5.9 \pm 1.5) \times 10^9/L$, $(140.3 \pm 50.1) \times 10^9/L$, $(3.6 \pm 0.7) \times 10^9/L$; In the control group, the white blood cell count, platelet count, erythrocyte count was $(2.8 \pm 1.2) \times 10^9/L$, $(45.8 \pm 20.5) \times 10^9/L$, $(3.4 \pm 0.4) \times 10^9/L$ and 2 weeks after operation, they were $(6.2 \pm 0.7) \times 10^9/L$, $(172.5 \pm 32.7) \times 10^9/L$, $(3.6 \pm 0.3) \times 10^9/L$ respectively. 2 weeks after the operation, there was no significant difference in the white blood cell count, red cell count, ($P > 0.05$) between the 2 groups, but platelet count was lower in the control group, the difference was statistically significant ($P < 0.05$). The postoperative white blood cell count, platelet count and erythrocyte count all showed statistically significant, the differences when compared to those before the treatment ($P < 0.05$). In the study group, 17 patients had postoperative complications, accounting for 16%; the control group, 20 cases were with postoperative complications, accounting for 38.2%; the difference was statistically significant ($P < 0.05$). **Conclusion:** Splenic artery ligation combined with liver resection for hepatocellular carcinoma and portal hypertension can be effective in the treatment of hepatocellular carcinoma with hypersplenism. It can promote the recovery of liver function, prolong the survival time in patients with primary liver cancer complicated with liver cirrhosis and hypersplenism and improve the quality of life.

Key words: Splenic artery ligation; Liver resection; Liver cancer; Portal hypertension

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作者简介: 盛涛(1973-),男,硕士,主治医师,从事肝胆外科方面的研究, E-mail: 2646793550@qq.com

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前言

原发性肝癌多在肝硬化的基础上发生, Llovet 等^[1]研究发现, 肝癌合并肝硬化患者中有 80% 存在不同程度的门静脉高压症。由于大部分肝癌合并门静脉高压症的患者病情复杂、肝功能较差、合并症较多, 术后容易发生肝功能衰竭、上消化道出血等严重的并发症, 治疗上较为困难。因此, 在治疗肝癌的同时能否有效地处理门静脉高压症, 直接关系到肝癌病人的预后^[2]。目前, 外科治疗肝癌的传统手术方式——一期联合肝癌切除、脾切除和贲门周围血管离断术, 并不一定适合所有的患者^[3]。本院采用脾动脉结扎联合肝癌切除术治疗肝癌并门静脉高压症, 取得了较为满意疗效, 现总结如下。

1 资料与方法

1.1 临床资料

选择 2008 年 10 月至 2013 年 10 月期间我院收治的 84 例肝癌并门静脉高压症患者的资料进行分析, 其中男 45 例, 女 39 例, 平均(60.12± 6.45)岁。术前肝功能 Child—Push A 级 19 例, B 级 59 例。研究组男 29 例, 女 21 例, 平均(58.12± 5.45)岁。术前肝功能 Child—Push A 级 10 例, B 级 34 例, 包括 c 级经术前治疗后转为 B 级 6 例; 肿瘤直径平均(7.8± 6.5)cm; 有上消化道出血病史 2 例, 合并门静脉癌栓 5 例, 合并肝静脉血栓 2 例, 脾肿大、脾亢 50 例。对照组男 20 例, 女 14 例, 平均(55.12± 5.45)岁。术前肝功能 Child—Push A 级 8 例, B 级 22 例, 包括 c 级经术前治疗后转为 B 级 4 例; 肿瘤直径平均(7.5± 6.9)cm; 有上消化道出血病史 1 例, 合并门静脉癌栓 4 例, 合并肝静脉血栓 1 例, 脾肿大、脾亢 34 例。两组在年龄、性别、肿瘤大小、术前肝功能、合并症等情况对比中差异无统计学意义(P>0.05)。

1.2 手术方法

两组患者均给予常规术前准备与肠道准备, 对研究组患者

行脾动脉结扎联合肝癌切除术, 对对照组患者行肝癌切除及脾切断流术, 方法如下: ①研究组(50 例): 患者全身麻醉, 在上腹取正中切口入腹, 吸出腹水。首先进行脾动脉结扎, 分离少许胃结肠韧带, 暴露胰腺, 在胰尾上缘将胰包膜切开, 找到脾动脉主干并暂行阻断, 脾脏若未出现明显的缺血改变, 则用 7 号丝线进行双重结扎。根据术中的实际情况, 对患者行半肝或全肝人肝血流阻断, 以常规的 PMOD 刮吸解剖切肝法将肝脏肿瘤切除, 切缘距离肿瘤约 1.0 cm。②对照组(34 例): 对患者同样采用全身麻醉, 在上腹取正中切口入腹, 吸出腹水。先切除脾脏, 再行贲门周围血管离断术, 然后根据术中的实际情况, 对患者行半肝或全肝人肝血流阻断, 以常规的 PMOD 刮吸解剖切肝法将肝脏肿瘤切除, 切缘距离肿瘤约 1.0 cm。

1.3 评价指标

观察对比研究组、对照组术前和术后 2 周的血小板计数、白细胞计数、红细胞计数及术后并发症。

1.4 统计学方法

应用 SPSS15.0 对数据进行统计分析, 组间计数资料对比以卡方检验, 计量资料对比以 t 检验, P<0.05 表示差异具有统计学意义。

2 结果

2.1 两组术后 2 周的白细胞计数、血小板计数、红细胞计数对比

两组患者均成功完成手术, 无死亡病例出现。研究组与对照组相比, 术前各项指标差异均无统计学意义(P>0.05), 术后 2 周白细胞计数、红细胞计数相比差异也无统计学意义(P>0.05), 但术后 2 周血小板计数研究组低于对照组, 差异有统计学意义(P<0.05)。组内比较, 研究组术前与术后的白细胞计数、血小板计数、红细胞计数相比, 差异均有统计学意义(P<0.05), 对照组同样如此。见表 1。

表 1 两组术前后 2 周的白细胞计数、血小板计数、红细胞计数对比($\bar{x} \pm s$)

Table 1 The comparison of white blood cell count, platelet count, red blood cell count before and 2 weeks after the surgery ($\bar{x} \pm s$)

组别 Groups	例数 Case	白细胞计数 White blood cell count ($\times 10^9/L$)		血小板计数 Platelet count ($\times 10^9/L$)		红细胞计数 Red blood cell count ($\times 10^9/L$)	
		术前 Before the surgery	术后 2 周 2 weeks after the surgery	术前 Before the surgery	术后 2 周 2 weeks after the surgery	术前 Before the surgery	术后 2 周 2 weeks after the surgery
研究组 The study group	50	3.1± 0.9	5.9± 1.5*	58.6± 12.7	140.3± 50.1*	3.4± 0.4	3.6± 0.7
对照组 The control group	34	2.8± 1.2	6.2± 0.7*	58.8± 20.5	172.5± 32.7*	3.2± 0.3	3.6± 0.3
t		0.928	2.705	1.025	2.805	1.015	0.025
P		0.208	0.031	0.192	0.028	0.105	0.952

注: * 与治疗前相比 t=2.808, 4.025, 3.207, 4.225, P=0.012, 0.000, 0.005, 0.000。

Note: * means t = 2.808, 4.025, 3.207, 4.225, P = 0.012, 0.000, 0.005, 0.000 compared with before treatment.

2.2 两组术后并发症情况对比

研究组有 17 例患者出现术后并发症, 占 16.0%; 对照组有

20 例患者出现术后并发症, 占 38.2%; 两组对比差异有统计学意义(P<0.05)。见表 2。

表 2 两组术后并发症对比(n/%)

Table 2 Comparison of postoperative complications between the two groups (n /%)

组别 Groups	例数 Case	术后腹水 Postoperative ascites	术后胸腔积液 Postoperative pleural effusion	切口脂肪液化 Incision fat liquefaction	脾脓肿脾栓塞 Splenic abscess splenic embolization	术后并发症发生率 The incidence of postoperative complications
研究组 The study group	50	4	3	1	0	16.0
对照组 The control group	34	8	3	2	0	38.2
X ²						5.012
P						0.030

原发性肝癌合并门静脉高压症是临床上较为常见的病例,但由于其病情复杂,外科手术治疗风险较高,术后并发症多、预后差等原因^[4],目前在临床上和学术上的争议较多,尚未形成统一的外科手术金标准。文献报道^[5]15%~28%的原发性肝癌术后因消化道大出血而死亡。肝癌并门静脉高压症患者若在切除肝癌的同时没有解决门脉高压症和脾亢的问题,单纯地切除肝癌并不一定能够达到较好的治疗效果。在临床上,外科医生应准确把握肝癌并门静脉高压症患者的手术指征^[6,7],对门静脉压力变高但仅表现为脾功能亢进的患者,行脾动脉结扎联合肝癌切除术能减小手术创伤^[8],减少并发症的发生率。对术前有食道胃底静脉曲张,且纤维胃镜显示曲张静脉呈“红色征”^[9],或既往有出血史的患者,行肝癌切除及脾切断流术可以更好的维持肝脏血流灌注,减少围手术期死亡率^[10]。

本研究采用脾动脉结扎联合肝癌切除术,在切除肝癌后仅行脾动脉结扎降低门静脉高压,对照组则采用肝癌切除及脾切断流术。从术前与术后2周的血小板、白细胞、红细胞计数可以看出,无论是研究组还是对照组,术后在短期内脾功能亢进减轻,凝血机能改善,残肝的动脉供血增加,有利于肝功能的恢复,这说明两种手术在各自的手术适应症下均有效。但同时也我们应看到,脾动脉结扎联合肝癌切除术的手术创伤远小于肝癌切除及脾切断流术,说明前者是以最小的手术创伤取得了同等程度的治疗效果。这与国内外一些学者^[12-14]的研究结果相似。本研究还发现,脾动脉结扎联合肝癌切除术在术后并发症的发生率上远低于对照组,说明研究组患者的预后好于对照组。因此,在施行同期联合手术时需要正确的评估术前患者各项指标和术中患者的手术耐受能力^[15,16],在两种手术指征都符合的情况下,尽可能选择创伤小、预后好、安全性更高的脾动脉结扎联合肝癌切除术,尽量避免不必要的损伤。

总之,本次研究对脾动脉结扎联合肝癌切除术治疗肝癌并门静脉高压症的治疗效果及安全性有了更进一步的认识和肯定。对肝癌并门静脉高压症采用脾动脉结扎联合肝癌切除术,能够达到与传统肝癌切除及脾切断流术相当的临床治疗效果^[17],减轻脾功能亢进,改善凝血机能,同时还具有肝癌切除及脾切断流术不具备的并发症少、创伤小、安全性高等优点^[18,19]。当然,由于肝癌并门静脉高压症本身病情的复杂性和临床治疗方式的多样化、个案化,脾动脉结扎联合肝癌切除术不可能适合所有肝癌并门静脉高压症的治疗^[20],但在众多解决此病症的外科手术方法中,脾动脉结扎联合肝癌切除术创伤较小、术后

并发症少的特点对延长原发性肝癌并门静脉高压症患者的生存时间、提高生活质量,具有重要意义。

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(上接第 6699 页)

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