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肝切除手术治疗肝包虫病的疗效及对患者预后和肝功能的影响 *

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摘要 目的:探讨肝切除手术治疗肝包虫病的疗效及对患者预后和肝功能的影响。**方法:**选取 2015 年 2 月 -2018 年 5 月期间我院收治的肝包虫病患者 103 例为研究对象, 所有患者根据手术方式的不同分为 A 组 (n=51, 行外膜内完整外囊摘除术) 和 B 组 (n=52, 行肝切除手术), 比较两组患者围术期临床指标、肝功能指标、并发症发生情况, 随访半年, 记录两组患者随访期间死亡及原位复发情况。**结果:**B 组术中出血量少于 A 组, 手术时间、术后拔管时间以及住院时间均短于 A 组, 组间比较差异有统计学意义 ($P<0.05$)。与术前比较, 两组患者术后 3 d、术后 7 d 谷丙转氨酶、胆红素以及谷草转氨酶均升高, 但 B 组低于 A 组 ($P<0.05$); 与术前比较, 两组患者术后 3 d、术后 7 d 白蛋白降低, 但 B 组高于 A 组 ($P<0.05$); 与术后 3 d 比较, 两组患者术后 7 d 谷丙转氨酶、胆红素以及谷草转氨酶均降低, 白蛋白升高 ($P<0.05$)。B 组术后并发症总发生率为 7.69%(4/52), 低于 A 组的 23.52%(12/51), 组间比较差异有统计学意义 ($P<0.05$)。两组随访期间无患者死亡, 原位复发率比较差异均无统计学意义 ($P>0.05$)。**结论:**肝切除手术治疗肝包虫病患者安全有效, 可减少术中出血量, 促进患者术后康复, 减轻手术对肝功能的影响, 且术后复发率较低, 患者预后较好。

关键词:肝切除手术; 肝包虫病; 疗效; 肝功能; 预后

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Efficacy of Hepatectomy for Hepatic echinococcosis and Its Effect on Prognosis and Liver Function*

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ABSTRACT Objective: To investigate the effect of hepatectomy for hepatic echinococcosis and its influence on prognosis and liver function. **Methods:** 103 patients with hepatic hydatidosis who were admitted to our hospital from February 2015 to May 2018 were selected as the research objects. All patients were divided into group A (n=51, complete extracapsular extraction) and group B (n=52, hepatectomy) according to different surgical methods. The perioperative clinical indicators, liver function indicators and complications were compared between the two groups. During the follow-up period of half a year, the death and in situ recurrence of the two groups were recorded. **Results:** The amount of intraoperative bleeding in group B was less than that in group A. The operation time, extubation time after operation and hospitalization time were shorter than those in group A. There was significant difference between the two groups ($P<0.05$). Compared with pre-operation, the glutamic-alanine aminotransferase, bilirubin and glutamic-oxaloacetic aminotransferase increased in two groups at 3 days after operation and 7 days after operation, but group B was lower than group A ($P<0.05$). Compared with pre-operation, the albumin in group B was lower than that in group A at 3 days and 7 days after operation, but group B was higher than group A ($P<0.05$). Compared with 3 days after operation, the glutamic-alanine aminotransferase, bilirubin and glutamic-oxaloacetic aminotransferase decreased and albumin increased in two groups at 7 days after operation ($P<0.05$). The total incidence of postoperative complications in group B was 7.69% (4/52), which was significantly lower than that in group A 23.52% (12/51), there was significant difference between groups ($P<0.05$). There was no patient died during the follow-up period in both groups, there was no significant difference in the recurrence rate in situ between the two groups ($P>0.05$). **Conclusion:** Hepatectomy is safe and effective in the treatment of hepatic echinococcosis. It can reduce the amount of bleeding during operation, promote the recovery of patients after operation, and reduce the effect of operation on liver function, the recurrence rate is low and the prognosis of patients is good.

Key words: Hepatectomy; Hepatic echinococcosis; Efficacy; Liver function; Prognosis

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前言

肝包虫病是一类人畜共患的慢性寄生虫病, 由棘球蚴虫的

囊状幼虫寄生于人体肝脏内而引发, 主要流行于我国畜牧业发达的西北地区^[1-3]。该病早期临床症状不明显, 多因右上腹偶出现肿块而开始引起注意, 临床多表现为上腹不适、食欲减退, 严

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重者导致囊肿穿破,伴有剧烈腹痛、发热、荨麻疹等急性过敏性休克及急腹症,病情严重,可致死亡^[45]。目前针对该病尚无特效药物治疗,已经确诊需立即行手术治疗,手术方式包括传统术式、微创术式及根治术式,现临床多倾向于低复发率、低并发症的根治术式,外膜内完整外囊摘除术、肝切除手术均是常见的根治术式,外膜内完整外囊摘除术可最大限度的保留正常肝组织,但该手术出血量大,对于较为复杂的肝包虫病,切除困难^[67]。肝切除手术可切除完整的肝包虫病灶,具有较好的治疗效果,但对施术者要求较高^[89]。本研究对我院肝包虫病患者分别行肝切除手术及外膜内完整外囊摘除术,分析两种手术方式对患者预后和肝功能的影响,以期临床术式的选择提供参考。

1 资料与方法

1.1 临床资料

选取 2015 年 2 月 -2018 年 5 月期间我院收治的 103 例肝包虫病患者。纳入标准:(1)均符合《实用内科学》^[10]中关于肝包虫病的相关诊断标准,并经手术后证实;(2)符合手术指征者;(3)均为首次确诊;(4)所有患者均知情且签署同意书;(5)均由同一组手术医师进行操作。排除标准:(1)病灶侵犯肝动脉、门静脉、肝静脉等主要血管,手术治疗无法进行者;(2)妊娠及哺乳期妇女;(3)CT 提示囊肿直径 >10 cm;(4)合并严重心肺并发症;(5)随访过程中的脱落病例。所有患者根据手术方式的不同分为 A 组(n=51)和 B 组(n=52),其中 A 组男 27 例,女 24 例,年龄 9~65 岁,平均(43.71± 8.39)岁;包虫囊直径 3~9 cm,平均(5.38± 1.27)cm;单发囊肿 26 例,多发囊肿 25 例。B 组男 29 例,女 23 例,年龄 10~67 岁,平均(42.94± 9.36)岁;包虫囊直径 2~9 cm,平均(5.49± 1.31)cm;单发囊肿 24 例,多发囊肿 28 例。两组患者临床资料比较无差异($P>0.05$),组间具备可比性。

1.2 方法

A 组行外膜内完整外囊摘除术,术前常规禁饮禁食,全麻,选右侧肋下缘做一切口,游离肝脏,充分暴露包虫囊肿,肝包虫外膜与该囊之间有一个潜在的可分离间隙,沿此间隙,用电刀

和刀柄将肝包虫囊分离,手术过程中,尽量结扎肝实质间管道组织,电凝处理较小组织。待肝包虫囊摘除后,将创面缝合并喷洒生物蛋白胶,给予双套管引流,3~5 d 后即可拔除引流管。B 组行肝切除手术,术前常规禁饮禁食,全麻,选右侧肋下缘做一切口,游离肝脏,充分暴露包虫囊肿,保护肝周,阻断第一肝门,若囊肿靠近第二肝门则需同时阻断第二肝门,术中视患者囊肿大小、病灶部位,选择肝叶、肝段或半肝切除,采用彭氏吸刮法断肝,将正常肝组织尽可能的保留,对于遇到的管道予以结扎后并切断,肝断面对拢缝合,肝创面给予双套管引流,3~5 d 后即可拔除引流管。两组患者术后给予常规抗感染处理。

1.3 观察指标

比较两组患者围术期临床指标情况,包括术中出血量、手术时间、术后拔管时间、住院时间。于术前、术后 3 d、术后 7 d 分别采集患者肘静脉血 5 mL,3000 r/min 离心 12 min,离心半径 11 cm,分离血清,置于 -30℃ 冰箱中待测。采用日本奥林巴斯多功能全自动生化分析仪(型号:AU400)检测患者谷丙转氨酶、谷草转氨酶,采用二甲亚砷法检测胆红素,试剂盒购自上海信誉生物科技有限公司;采用考马斯亮蓝法检测白蛋白,试剂盒购自南京建成生物科技有限公司。记录两组患者并发症发生情况,包括残腔感染、残腔积液、膈下感染、胸腔积液、残腔胆漏。采用电话询问或门诊复查等方式随访半年,观察两组患者预后情况,包括死亡及原位复发情况。

1.4 统计学方法

采用 SPSS25.0 进行统计分析,计数资料以率的形式表示,行卡方检验,计量资料以($\bar{x} \pm s$)的形式表示,行 t 检验,以 $\alpha=0.05$ 为检验标准。

2 结果

2.1 两组围术期临床指标比较

B 组术中出血量较 A 组少,手术时间、术后拔管时间以及住院时间均短于 A 组,组间比较有差异($P<0.05$),详见表 1。

表 1 两组围术期临床指标比较($\bar{x} \pm s$)

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

Groups	Amount of intraoperative bleeding(mL)	Operation time(min)	Extubation time after operation(d)	Hospitalization time(d)
Group A(n=51)	288.05± 15.31	131.24± 12.86	4.11± 0.68	7.72± 1.03
Group B(n=52)	197.87± 16.87	87.05± 11.03	3.54± 0.72	6.48± 1.12
t	28.393	18.731	4.129	5.845
P	0.000	0.000	0.000	0.000

2.2 两组患者肝功能指标比较

两组患者术前谷丙转氨酶、胆红素、白蛋白以及谷草转氨酶比较差异无统计学意义($P>0.05$);与术前比较,两组患者术后 3 d、术后 7 d 谷丙转氨酶、胆红素以及谷草转氨酶均升高,但 B 组低于 A 组($P<0.05$);与术前比较,两组患者术后 3 d、术后 7 d 白蛋白降低,但 B 组高于 A 组($P<0.05$);与术后 3 d 比较,两组患者术后 7 d 谷丙转氨酶、胆红素以及谷草转氨酶均降低,白蛋白升高($P<0.05$),详见表 2。

2.3 两组患者并发症发生情况比较

B 组术后并发症总发生率为 7.69%(4/52),低于 A 组的 23.52%(12/51),组间比较差异有统计学意义($P<0.05$),详见表 3。

2.4 两组患者预后情况比较

随访期间,两组均无患者死亡,其中 A 组原位复发 3 例,B 组原位复发 1 例,两组患者随访期间原位复发率比较差异均无统计学意义($\chi^2=1.081, P=0.298$)。

表 2 两组患者肝功能指标比较($\bar{x} \pm s$)Table 2 Comparison of liver function indicators between two groups($\bar{x} \pm s$)

Groups	Glutamic-alanine aminotransferase(U/L)			Bilirubin(μ mol/L)			Albumin(g/L)			Glutamic-oxaloacetic aminotransferase(U/L)		
	Pre-oper- ation	3 days after operation	7 days after operation	Pre-oper- ation	3 days after operation	7 days after operation	Pre-oper- ation	3 days after operation	7 days after operation	Pre-oper- ation	3 days after operation	7 days after operation
Group A (n=51)	32.98 $\pm$ 3.32	146.08 $\pm$ 12.86*	42.16 $\pm$ 5.74*#	11.24 $\pm$ 2.37	33.97 $\pm$ 5.34*	21.48 $\pm$ 3.31*#	39.03 $\pm$ 2.52	26.82 $\pm$ 2.34*	32.54 $\pm$ 2.64*#	27.97 $\pm$ 4.35	42.12 $\pm$ 3.89*	37.35 $\pm$ 3.56*#
Group B (n=52)	33.15 $\pm$ 3.48	125.27 $\pm$ 14.31*	36.99 $\pm$ 4.59*#	10.92 $\pm$ 3.63	25.96 $\pm$ 4.23*	15.47 $\pm$ 3.37*#	38.87 $\pm$ 3.47	29.31 $\pm$ 2.39*	35.49 $\pm$ 2.93*#	28.10 $\pm$ 3.27	37.83 $\pm$ 3.13*	33.41 $\pm$ 3.62*#
t	0.254	7.758	5.053	0.529	8.447	9.129	0.267	5.342	5.365	0.172	6.172	5.568
P	0.800	0.000	0.000	0.598	0.000	0.000	0.790	0.000	0.000	0.864	0.000	0.000

Note: compared with pre-operation, * $P < 0.05$; compared with 3 days after operation, # $P < 0.05$.

表 3 两组患者并发症发生情况比较[n(%)]

Table 3 Comparisons of complications between two groups [n(%)]

Groups	Residual cavity infection	Sub phrenic infection	Residual bile leakage	Pleural effusion	Residual cavity effusion	Total incidence rate
Group A(n=51)	1(1.96)	3(5.88)	3(5.88)	4(7.84)	1(1.96)	12(23.52)
Group B(n=52)	0(0.00)	1(1.92)	0(0.00)	2(3.85)	1(1.92)	4(7.69)
χ^2						4.922
P						0.027

3 讨论

人类感染包虫病的主要原因是接触狗、羊,进而误食其虫卵引起,虫卵经肠内消化液作用,蛻壳而出,经肠黏膜穿入门静脉系统,但绝大多数会被阻留于肝脏内,由此引发肝包虫病^[11-13]。全国流行病学调查显示^[14],全国人群肝包虫病患病率约为0.24%,若不及时治疗,10年内的病死率可达75%~94%,给患者的生命健康带来巨大威胁。目前临床针对该病治疗尚无特效药物,外科手术治疗仍是首选,外膜内完整外囊摘除术治疗可有效保留正常肝组织,加之完整剥离,可避免因囊壁破裂引起的囊液外溢现象^[15,16],然而该术式弊端仍较为常见,如存在钙化粘连、左右肝多发囊肿、近肝门初囊肿等患者,强行剥离易损伤主要胆管及大血管,危及患者性命^[17,18]。肝切除手术是在外膜内完整外囊摘除术的基础上衍生而来,原则上只要解剖条件许可,剩余肝足够机体代偿^[19,20]。

本次研究结果表明,B组术中出血量少于A组,手术时间、术后拔管时间以及住院时间均短于A组,可见肝切除手术治疗肝包虫病,疗效更佳,主要是由于随着肝脏外科技术的进步,各种入肝、出肝血流阻断技术的提高,可有效止血,减少切肝时的出血量,减少机体损伤,加快患者康复进程,缩短术后拔管时间以及住院时间^[21-23]。同时外膜内完整外囊摘除术在剥离过程中因解剖层次不明显,完全取决于主刀医生的主观意识及技术水平,操作较为困难,另当囊肿位于肝实质深处或包虫囊肿囊液感染时,行外囊摘除术具有一定的困难,故其手术时间明显延长^[24]。此外,两组患者术后3 d谷丙转氨酶、胆红素以及谷草转氨酶均有不同程度的升高,白蛋白则降低,术后7 d逐渐恢复接近至术前水平,但B组影响程度小于A组,提示两种术式均会对患者肝功能产生不同程度的损害,但肝切除手术影响相

对更轻。肝切除手术以精准肝切除理念为操作核心,肝门初结构复杂,肝脏血流丰富,手术过程中极易出现大出血,肝切除手术过程中可有效阻断血流,避免缺血再灌注对肝脏的损害^[25-27]。另外,B组术后并发症总发生率为7.69%,低于A组的23.52%,表明肝切除手术治疗可有效减少术后并发症发生情况,这可能是由于肝切除手术患者术中出血量少,术后住院时间短,可更早下床活动,恢复正常饮食,有利于机体恢复,同时该术式可减少术后引流管放置时间。引流管留置时间的缩短则降低了引流管逆行感染风险,促进术后患者的愈合,进而降低并发症发生几率^[28-30]。本研究结果还显示,两组随访期间无患者死亡,原位复发率比较差异无统计学意义,表明两组患者的短期预后情况均较好。本研究的不足之处在于样本量偏小、随访时间过短,可能致使结果存在一定的偏倚,后续将增加大样本量、延长随访时间,以观察远期预后作进一步报道。

综上所述,肝切除手术治疗肝包虫病,可有效改善患者围术期临床指标情况,安全性较好,可在一定程度上减轻对患者肝功能影响,预后良好。

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