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腹腔镜联合经内镜逆行性胰胆管造影术治疗胆总管结石的疗效观察*

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摘要 目的:探讨腹腔镜联合经内镜逆行性胰胆管造影术治疗胆总管结石的临床疗效及安全性。**方法:**选择2016年1月到2019年1月我院收治的胆总管结石患者350例为研究对象,根据手术方法将其分为观察组(n=176)和对照组(n=174)。对照组给予腹腔镜胆囊切除、胆总管切开取石术,观察组给予腹腔镜联合经内镜逆行性胰胆管造影术治疗。比较两组患者的手术情况、治疗前后总胆汁酸(TBA)、总胆红素(TBil)、直接胆红素(DBil)、间接胆红素(IBil)、谷草转氨酶(AST)、谷丙转氨酶(ALT)、 γ -谷氨酰转肽酶(γ -GT)水平的变化、胃肠功能恢复情况及并发症的发生情况。**结果:**观察组手术时间明显长于对照组($P<0.05$),术中出血量、术后下床时间及住院时间均显著低于对照组($P<0.05$)。两组治疗后血清TBA、TBil、DBil、IBil、AST、ALT及 γ -GT水平均较治疗前显著改善,且观察组血清以上指标水平均显著低于对照组($P<0.05$)。观察组肠鸣音恢复时间、排气时间及排便时间均明显短于对照组($P<0.05$)。治疗期间,两组并发症总发生率为1.70%、13.22%,观察组显著低于对照组($P<0.05$)。**结论:**腹腔镜联合经内镜逆行性胰胆管造影术治疗胆总管结石患者的临床效果显著优于腹腔镜胆囊切除、胆总管切开取石术,其可有效缩短患者住院时间,改善其肝功能,且安全性较高。

关键词:腹腔镜;经内镜逆行性胰胆管造影术;胆总管结石;疗效

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Curative Efficacy of Laparoscopic Combined with Endoscopic Retrograde Cholangiopancreatography in the Treatment of Choledocholithiasis*

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ABSTRACT Objective: To study the curative efficacy of Laparoscopic combined with endoscopic retrograde cholangiopancreatography in the treatment of choledocholithiasis. **Methods:** 350 patients with choledocholithiasis admitted to our hospital from January 2016 to January 2019 were selected and divided into the observation group (n=176) and the control group (n=174) according to surgical methods. The control group was treated with laparoscopic cholecystectomy, while the observation group was treated with laparoscopic combined with endoscopic retrograde cholangiopancreatography. The changes of total bile acid (TBA), total bilirubin (TBil), direct bilirubin (DBil), indirect bilirubin (IBil), AST, ALT, and kid-gt before and after treatment, the recovery of gastrointestinal function and the occurrence of complications in the two groups were compared. **Results:** The operation time of observation group was significantly longer than that of the control group ($P<0.05$), and the intraoperative blood loss, postoperative bed-out time and hospital stay were significantly lower than those in the control group ($P<0.05$). After treatment, the serum levels of TBA, TBil, DBil, IBil, AST, ALT and il-gt in the two groups were significantly improved compared with those before treatment, which were significantly lower in the observation group than those in the control group ($P<0.05$). The recovery time, exhaust time and defecation time in the observation group were significantly shorter than those in the control group ($P<0.05$). During the treatment period, the total incidence of complications in the two groups was 1.70% and 13.22%, which were significantly lower in the observation group than in the control group ($P<0.05$). **Conclusion:** Laparoscopic combined with endoscopic retrograde cholangiopancreatography is significantly better than laparoscopic cholecystectomy in the treatment of choledocholithiasis, which can effectively shorten the hospital stay of patients, improve their liver function with higher safety.

Key words: Laparoscope; Endoscopic retrograde cholangiopancreatography; Choledocholithiasis; The curative effect

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前言

胆总管结石是临床常见的消化系统疾病,指发生于胆总管内的结石,好发于胆总管下段。近年来,随着人们饮食结构的改变,其发病率呈上升趋势,有研究显示其发生率占同期收治的胆石症患者的 15%^[1-3],其临床表现复杂多样,主要表现为热、黄疸、急剧腹痛,严重者甚至会出现休克^[4]。

手术治疗是临床治疗胆总管结石的主要手段,其中以腹腔镜胆囊切除、胆总管切开取石术是主要的手术方式,具有创伤小、术后恢复快、住院时间短的优势,但术后有残留结石的现象,且并发症较多^[5,6]。近年来,随着腹腔镜及内镜技术的成熟,多镜联合的微创手术方式开始推广应用,其中腹腔镜胆囊切除术联合经内镜逆行性胰胆管造影术为常用的方法,不仅取石彻底、创伤小,且术后恢复快,但该手术操作复杂,且操作空间相对狭窄,对手术医师的经验、技术要求较高^[7,8]。本研究主要探讨了腹腔镜联合经内镜逆行性胰胆管造影术治疗胆总管结石的疗效和安全性,现将结果报道如下。

1 资料与方法

1.1 一般资料

选择 2016 年 1 月~2019 年 1 月于我院收治的 350 例胆总管结石患者为研究对象,根据手术方法将其分为 2 组,观察组 176 例,男 99 例,女 77 例,年龄 39~70 岁,平均 (64.53 ± 3.54) 岁,平均结石个数 (2.25 ± 1.12) 个,平均结石直径 (1.94 ± 0.65) cm。对照组 174 例,男 90 例,女 84 例,年龄 38~71 岁,平均 (63.52 ± 3.52) 岁,平均结石个数 (2.19 ± 1.15) 个,平均结石直径 (1.91 ± 0.63) cm。两组基线资料比较差异均无统计学意义,具有可比性。

1.2 诊断标准

(1)伴有上腹痛;(2)伴有发热、黄疸;(3)B 超、胰胆管成像明

确为胆总管结石。

1.3 纳入标准和排除标准

纳入标准:(1)符合上述诊断标准;(2)无其他上腹手术史者;(3)无手术禁忌症;(4)无肝内胆管结石;(5)签署知情同意书。排除标准:(1)严重心肺疾病者;(2)造影剂过敏者;(3)免疫系统疾病者;(4)全身感染性疾病;(5)精神性疾病者;(6)麻醉过敏者;(7)血液系统疾病者;(8)肝功能衰竭者。

1.4 治疗方法

对照组患者全麻后,建立气腹,展开胆囊三角电钩切断三角附近筋膜,暴露出胆囊管及胆囊动脉。分离切除整个胆囊组织。切开胆总管前壁,取出结石。观察组患者全麻后,选择性插入十二指肠乳头开口,抽出胆汁,注入造影剂,观察结石具体情况。采用腹腔镜胆囊切除术:切开胆总管前壁取石,取净后常规留置引流管。

1.5 观察指标

采集治疗前、治疗后肘静脉血 4 mL,3500 r·min⁻¹ 离心 10 min,提取血清,采用全自动生化分析仪测定 TBA、TBil、DBil、IBil、AST、ALT 及 γ -GT 水平,设备由北京普朗新技术有限公司提供;记录手术、胃肠恢复情况及并发症情况。

1.6 统计学分析

数据采用 spss18.0 软件包进行处理,符合正态分布计量资料用均数 $\pm$ 标准差($\bar{x} \pm s$)表示,组间比较使用独立样本 t 检验,计数资料以率表示,组间比较采用 χ^2 检验,以 $P < 0.05$ 表示差异具有统计学意义。

2 结果

2.1 两组手术情况的比较

观察组手术时间明显长于对照组;术中出血量、术后下床时间及住院时间均显著短于对照组($P < 0.05$),见表 1。

表 1 两组手术情况的比较($\bar{x} \pm s$)

Table 1 Comparison of the surgical conditions between the two groups($\bar{x} \pm s$)

Groups	n	Operative time (min)	Intraoperative bleeding volume (mL)	Time of getting out of bed after operation (d)	Length of stay (d)
Observation group	176	125.63 $\pm$ 13.69	41.56 $\pm$ 5.35	1.56 $\pm$ 0.59	8.15 $\pm$ 1.68
Control group	174	114.53 $\pm$ 15.74	71.24 $\pm$ 5.63	2.84 $\pm$ 0.87	12.81 $\pm$ 1.96
T value		7.042	50.560	16.125	23.890
P value		0.000	0.000	0.000	0.000

2.2 两组治疗前后生化指标水平的比较

治疗前,两组血清 TBA、TBil、DBil 及 IBil 水平比较无显著差异($P > 0.05$);治疗后,观察组血清 TBA、TBil、DBil 及 IBil 水平均显著低于对照组($P < 0.05$),见表 2。

2.3 两组治疗前后肝功能的比较

治疗前,两组肝功能水平比较无显著差异($P > 0.05$);治疗后,观察组血清 AST、ALT 及 γ -GT 均显著低于对照组($P < 0.05$),见表 3。

2.4 两组胃肠功能恢复时间的比较

观察组胃肠功能恢复时间均明显短于对照组($P < 0.05$)见表 4。

2.5 两组并发症发生情况的比较

治疗期间,两组并发症总发生率分别为 1.70%、13.22%,观察组显著低于对照组($P < 0.05$),见表 5。

3 讨论

胆总管结石是肝胆外科的常见病,发病率较高,与环境和饮食密切相关,可分为原发性和继发性两种。研究表明大多数胆总管结石患者伴有胆囊炎^[9,10],病情容易反复发作,且常导致胆道炎症、胰腺疾病的发生,严重时还可导致单管癌症的恶化,严重影响患者的工作和生活^[11-13]。近年来,随着腹腔镜技术的成熟,腹腔镜胆囊切除、胆总管切开取石术已成为治疗胆总管结石的常用方法^[14,15]。腹腔镜胆囊切除术采用特制导管插进腹膜

腔,在腹部开4个小洞,解剖胆囊三角区结构,然后切除胆囊、胆总管切开取出结石,“T”型管引流,但术后并发症较多^[16-18]。近年来,有学者提出采用腹腔镜联合胆道镜的微创手术联合治疗,为胆总管结石病例提供了一种安全有效的治疗方法^[19,20]。

表2 两组治疗前后生化指标水平比较($\bar{x} \pm s, \mu\text{mol/L}$)Table 2 Comparison of the biochemical indexes between the two groups before and after treatment($\bar{x} \pm s, \mu\text{mol/L}$)

Groups	n	TBA		TBil		DBil		IBil	
		Before treatment	After treatment	Before treatment	After treatment	Before treatment	After treatment	Before treatment	After treatment
Observation group	176	50.38± 6.17	17.04± 2.78	72.14± 8.16	21.56± 3.21	50.49± 7.27	14.35± 1.16	40.19± 5.14	15.69± 2.15
Control group	174	50.32± 6.21	26.14± 3.45	72.18± 8.19	30.95± 4.52	50.38± 7.32	21.09± 2.49	40.23± 5.21	20.86± 3.39
T value		0.091	27.186	0.046	22.427	0.141	32.518	0.072	17.058
P value		0.928	0.000	0.964	0.000	0.888	0.000	0.942	0.000

表3 两组治疗前后肝功能的比较($\bar{x} \pm s, \text{U/L}$)Table 3 Comparison of the liver function between the two groups before and after treatment($\bar{x} \pm s, \text{U/L}$)

Groups	n	AST		ALT		γ -GT	
		Before treatment	After treatment	Before treatment	After treatment	Before treatment	After treatment
Observation group	176	112.39± 15.41	48.79± 6.21	97.56± 10.08	37.37± 5.12	89.48± 9.14	30.78± 4.31
Control group	174	112.43± 15.46	59.46± 7.23	97.61± 10.12	48.93± 6.15	90.02± 9.56	39.98± 4.31
T value		0.024	14.816	0.046	19.119	0.540	19.967
P value		0.981	0.000	0.963	0.000	0.589	0.000

表4 两组胃肠功能恢复时间的比较($\bar{x} \pm s$)Table 4 Comparison of gastrointestinal function recovery between the two groups($\bar{x} \pm s$)

Groups	n	Recovery time of bowel sounds(h)		Anal exhaust time(h)		Anal defecation time(h)	
Observation group	176	14.58± 3.54		21.52± 5.26		38.69± 7.41	
Control group	174	18.26± 4.17		25.63± 6.25		45.63± 6.59	
T value		8.904		6.659		9.255	
P value		0.000		0.000		0.000	

表5 两组并发症发生情况的比较[例(%)]

Table 5 Comparison of the incidence of complications between the two groups[n(%)]

Groups	n	Calculi residual	Postoperative bleeding	Bile leakage	The total incidence of
Observation group	176	0	1	2	3(1.70)
Control group	174	16	3	4	23(13.22)
χ^2 value					16.868
P value					0.000

经内镜逆行性胰胆管造影术是一种不需麻醉的诊疗胆总管结石的高科技手段,安全性高,能清楚显示胆管、结石形态及部位,两种方法联合治疗取石彻底,且术后恢复快,在胆总管结石的治疗中具有很大的应用前景^[21-23]。有研究显示手术医师在具备熟练的操作技能及娴熟的腔内取石的情况下,腹腔镜联合经内镜逆行性胰胆管造影术能减少手术损伤,手术时间更少^[24]。本研究结果显示腹腔镜联合经内镜逆行性胰胆管造影术治疗的手术时间虽然较长,但术中出血量、术后下床时间及住院时间均更低,且并发症总发生率为1.70%,低于对照组。国外研究显示腹腔镜联合经内镜逆行性胰胆管造影术能减少由于手术导致胆道狭窄,降低患者并发症发生率^[25],提示联合经内镜逆行性胰胆管造影术安全有效,能改善患者手术情况,减少并发症。分析其原因是因为经内镜逆行性胰胆管造影术作为一种

微创手术,对患者机体生理功能影响小,且结石清除率高,可提高手术效果,并减少并发症的发生。

结石堵塞胆道容易造成肝内胆汁淤积,损伤患者肝细胞引起肝功能下降,机体排泄胆汁的功能进一步减退,形成恶性循环^[26-28]。本研究结果显示联合治疗能有效改善患者肝功能。Panagiotis Katsinelos^[29]等研究显示经内镜逆行性胰胆管造影术的患者术后7d肝功能水平明显降低。分析其原因是因为经内镜逆行性胰胆管造影术无需将胆总管切开,保证了胆总管完整性。此外,研究结果还显示联合治疗的患者肠鸣音恢复时间、排气时间及排便时间均明显低于对照组,提示联合经内镜逆行性胰胆管造影术可改善患者胃肠功能。Montenovo M^[30]等研究显示联合治疗可以有效的减少对患者的影响,从而减轻患者经济负担。

综上所述,腹腔镜联合经内镜逆行性胰胆管造影术治疗胆总管结石患者的临床效果显著优于腹腔镜胆囊切除、胆总管切开取石术治疗,其可有效缩短患者住院时间,改善其肝功能,且安全性较高。

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