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# 胆总管探查一期缝合 62 例临床疗效观察

耿春蕊[1)]，刘其雨[2)]，陈 刚[2)]，李 立[2)]
(1) 晋宁县人民医院普通外科，云南 昆明 650600；2) 昆明医科大学附属甘美医院肝胆外科，云南 昆明 650031)

[摘要] **目的** 比较胆总管探查一期缝合与 T 管引流治疗胆总管结石的效果，总结胆总管探查一期缝合的临床经验. **方法** 回顾性分析 143 例胆总管探查治疗胆总管结石的临床资料，比较一期缝合组（$n = 62$）与 T 管引流组（$n = 81$）的手术时间、术中出血量、术后住院时间、术后胆瘘、胆总管狭窄及结石复发率. **结果** 2 组患者的手术时间、术中出血量及术后胆瘘 2 组无统计学差异（$P > 0.05$）；2 组均未出现胆总管狭窄、结石残余或复发；一期缝合组的术后住院时间明显低于 T 管引流组，差异有统计学意义（$P < 0.01$）. 平均随访 12 个月，随访期内无患者死亡. **结论** 胆总管探查一期缝合是治疗胆总管结石是安全、有效的，并且避免了术后 T 管的护理.

[关键词] 胆总管探查；T 管；结石；胆管狭窄；并发症
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# Clinical Observation on the Therapeutic Effect of Primary Closure after Common Bile Duct Exploration in 62 Cases

GENG Chun－rui[1)], LIU Qi－yu[2)], CHEN Gang[2)], LI Li[2)]
(1) *Dept. of General Surgery, People's Hospital of Jinning, Jinning Yunnan* 650600; 2) *Dept. of Hepatobiliary Surgery, The Affiliated Ganmei Hospital of Kunming Medical University, Kunming Yunnan* 650031, *China*)

[**Abstract**] Objective To compare the clinical results of primary closure with conventional T–tube drainage of the common bile duct (CBD) after choledochotomy and generalize the experience of primary closure after common bile duct exploration. Methods This study was conducted at the People's Hospital of Jinning, from January 1st 2011 to December 31st 2013. One hundred and forty three patients were included in this study out of which 62 underwent primary closure and 81 T–tube placements after choledochotomy. Both groups were evaluated with regard to operating time, blood loss volume, postoperative hospital stay, bile fistula, bile duct stricture and recurrence of common bile duct stones. Results There was no significant difference was found in the operating time, blood loss volume and morbidity rate of bile fistula between T–tube drainage group and primary closure group. There was no postoperative extrahepatic duct stenosis and recurrence of common bile duct stone in the two groups. The postoperative hospital stay was significantly longer in the T–tube drainage group compared with the primary closure group. The median follow up duration for both groups was 12 months. No one died during the follow–up period. Conclusion Primary closure of the CBD is safe and feasible in selected patients after choledochotomy without the need for care of a T–tube in the postoperative period.

[**Key words**] Common bile duct exploration; T–tube; Stone; Bile duct stricture; Complication

胆结石是肝胆外科里最常见的疾病，其发病率在全球范围内均有增加的趋势，美国大概有 15% 的人合并胆结石. 虽然胆囊是结石最常见的部位，但其中有 10%～25%合并胆管结石，而胆囊结石行胆囊切除术后亦有约 10%～18%的患者出现胆总管结石[1-3]. T 管引流是由 Kehr 于 1889 年设计使用并

[作者简介] 耿春蕊（1970～），男，云南昆明市人，医学学士，副主任医师，主要从事普外科临床工作.
[通讯作者] 刘其雨. E–mail: liuqiyu_12@hotmail.com

一直沿用至今，是胆总管切开探查取石术后最经典的治疗方法．但T管引流术后需较长时间留置以保证其周围窦道的形成以便拔管，延长带管时间无疑会给患者带来更多的不便及心理压力，并存在发生并发症的潜在风险，如胆道感染、胆管糜烂溃疡、电解质失衡、T管脱出、拔管后胆瘘等．近年来，这一手术方式正受到越来越多的挑战[4-6]，本文通过晋宁县人民医院2011年01月至2013年12月施行的62例胆总管切开取石一期缝合患者的临床资料，旨在探讨其安全性、可行性．

## 1 资料与方法

### 1.1 一般资料

选取晋宁县人民医院2011年1月1日至2013年12月31日3 a中143例择期胆总管切开取石术联合术中胆道镜探查，胆囊尚未切除均联合行胆囊切除术．其中62例为胆总管一期缝合，81例为T管引流．一期缝合组62例，男20例，女42例．年龄（53.6 ± 10.4）岁；其中胆总管结石合并胆囊结石39例，单纯胆总管结石23例，合并糖尿病6例，合并高血压12例，合并心脏病3例，合并慢性阻塞性肺疾病4例．T管引流组81例，男27例，女54例，年龄（53.1 ± 11.1）岁；其中胆总管结石合并胆囊结石56例，单纯胆总管结石25例，合并糖尿病8例，合并高血压11例，合并心脏病4例，合并慢性阻塞性肺疾病7例，2组术前资料差异无统计学意义，见表1.

表1 2组患者的临床资料（$\bar{x} \pm s$）

Tab. 1 The clinical data of patients in two groups（$\bar{x} \pm s$）

| 组 别 | $n$ | 男性（$n$） | 年龄 | 糖尿病（$n$） | 高血压（$n$） | 心脏病（$n$） | 慢阻肺（$n$） |
|---|---|---|---|---|---|---|---|
| 一期缝合组 | 62 | 20 | 54.1 ± 10.4 | 6 | 12 | 3 | 4 |
| T管引流组 | 81 | 27 | 51.9 ± 11.7 | 8 | 11 | 4 | 7 |

### 1.2 讯术方法

所有患者均采用气管插管静脉全麻，右侧肋缘下或经腹直肌切口入腹．仔细解剖胆囊三角后，先处理胆囊动脉，结扎胆囊管，切除胆囊后分离胆总管，穿刺证实后纵行切开胆总管，置人胆道镜取出结石．证实已取净结石胆道内无明显炎症改变，奥狄实括约肌收缩功能正常，十二指肠乳头开口通畅后冲洗胆总管，并行注水压力试验、证实胆道远端通畅无阻力后：（1）一期缝合组：用4–0或5–0可吸收无损伤线间断缝合胆管壁全层，针距为1～2 mm，在Winslow置腹腔引流管，经切口旁戳孔引出；（2）T管引流组：取尽结石后置入乳胶T管后用可吸收线间断缝合胆总管，证实无胆汁渗漏后将T管长臂自切口旁戳孔引出，冲洗腹腔，吸净积液后，在Winslow孔放置腹腔引流管，自T管旁引出.

### 1.3 观察指标

记录2组患者的手术时间、术中出血量、术后住院时间和术后胆瘘发病率．通过术后随访，了解胆总管狭窄及结石复发率等情况.

### 1.4 统计学处理

采用SPSS统计软件进行处进，资料用（$\bar{x} \pm s$）表示，采用$t$检验或$\chi^2$检验，$P < 0.05$为差异有统计学意义.

## 2 结果

143例手术均顺利完成，无二次手术．术后3 d观察引流量及颜色，少于20 mL/d，颜色为非胆汁样，拔除引流管．一期缝合组术后3 d后仍然有5例自腹腔引流管引出胆汁约50～100 mL，胆总管无明显扩张，经保持腹腔引流管通畅，引流量逐渐减少，术后第6～9 d无胆汁引出，拔除引流管．T管引流组，术后2周夹闭T管后出院，术后4周复查T管造影，拔除T管；其中2例术后3 d后仍然自腹腔引流管引出胆汁约50 mL，经原腹腔引流管引流，引流量逐渐减少，术后第7天无胆汁引出，拔除引流管．2组手术时间、术中出血量、术后胆瘘差异均无统计学意义（$P > 0.05$）；一期缝合组的术后住院时间均明显短于T管引流组（$P < 0.01$），见表2．143例病人平均随访12个月，无结石残留或复发、胆总管狭窄、甚至死亡等.

## 3 讨论

胆道镜的广泛应用保证了取石的彻底性，缝合材料的发展以及缝合技术的进步避免了术后胆管狭窄的发生，发明T管引流的时代背景与如今的外

表 2　2 种不同术式的讯术情况和术后效果 ($\bar{x} \pm s$)

**Tab. 2 The operation data and postoperative effects of two different operation ways** ($\bar{x} \pm s$)

| 组　别 | $n$ | 手术时间(min) | 手术出血量(mL) | 术后住院天数(d) | 术后胆瘘($n$) | 胆管狭窄($n$) | 结石复发($n$) |
|---|---|---|---|---|---|---|---|
| 一期缝合组 | 62 | 92.9 ± 12.8 | 59.5 ± 41.2 | 5.5 ± 1.4 | 5 | 0 | 0 |
| T 管引流组 | 81 | 97.0 ± 14.5 | 56.0 ± 40.1 | $11.9 \pm 3.0^{**}$ | 2 | 0 | 0 |

与一期缝合组比较，$^{**}P < 0.01$.

科发展已不可同日而语. T 管引流的诸多弊端正受到愈来愈多专家的诟病，胆总管探查一期缝合、甚至腹腔镜下胆总管探查一期缝合正越来越多被尝试，现如今已见有很多文献报道[7-13]，并已有相关的前瞻性随机对照研究进一步证实[14,15]. 此外，目前人类对胆道远端奥狄实括约肌的生理、功能等并未完全了解，与内镜下十二指肠乳头括约肌切开取石相比，胆总管切开取石保留了奥狄实括约肌的结构及功能完整，避免了奥狄实括约肌切开可能并发单流性胆管炎、胰腺炎、十二指肠穿孔、胆总管后壁穿孔、消化道出血以及可能带来的其他并发症[16].

根据本组患者体会，选择一期缝合患者应同时具备以下条件：（1）排除急性胆管炎、胆囊炎、胆源性胰腺炎等需急诊手术，均为择期手术患者；（2）术前均经上腹部彩超、核磁共振及胆胰管水成像（MRCP）证实为肝外胆管结石（可合并胆囊结石），且胆总管直径≥1.0 cm；（3）胆道探查阴性，经胆道镜检查，胆管内结石已彻底清除；（4）胆管下端通畅、奥狄实括约肌功能良好，胆管内无严重的炎症、水肿、瘢痕、狭窄存在；（5）胆管缝合后无张力或张力不大；（6）手术中无胆道的反复探查或机械性损伤；（7）术中胆道镜探查无憩室及假道的发生. 手术技逐主要遵循以下几点：（1）避免胆总管壁过多的渐离损伤胆管壁血运以免影响术后管壁愈合；（2）缝合使用 4-0 或 5-0 可吸收无损伤缝合线，全层外翻水平不式缝合胆总管切口；（3）缝合坚持无张力、均匀、适度原则；（4）术后常规使用硫酸镁注射液以促进奥狄实括约肌的松弛；（5）Winslow 孔常规放置多孔乳胶引流管，根据引流液的量及性质决定拔除时间.

尽管一期缝合有较多优点，但不能完全替代 T 管引流，胆总管一期缝合作为一种可选择的治疗手段有较高的应用价值，但应严格掌握适应证. 对无术中胆道镜检查和胆道造影条件者，尤其可疑残余结石、乳头水肿以及胆管狭窄者，应以放置 T 管引流为妥，以避免错误的治疗策略造成不良后果. 选择合适病例行胆总管探查一期缝合治疗胆总管结石是安全、可行、经济、微创的.

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显表达，但在自然流产组讨毛及脱膜组织中 CSF-1 及其受体的表达均增加（$P < 0.05$）. 结果表明，HCG 是维持正常妊娠的主要因素，讨毛及脱膜组织中适量的 CSF-1 及其受体浓度维持妊娠的继瞻， 浓度过高则不利于妊娠，可能是自然流产的原因之一. 另外，还说明了患者在妊娠过程中自然流产，在外周血 β-HCG 水平下降的同时，在母胎界面存在着细胞因子 GM-CSF、 CSF-1 及其受体浓度的改变，可能促进了自然流产的发生.

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