

腹腔镜下胆总管囊肿切除术后吻合口狭窄问题

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【摘要】 腹腔镜囊肿切除肝门空肠吻合术用于治疗胆总管囊肿已有 20 余年历史,操作方法也趋于成熟。目前,随着产前检出率的提高和手术时机的提前,腹腔镜术后吻合口狭窄成为患儿接受再次手术的最主要原因。为达到更理想的手术疗效,笔者结合临床工作经验,归纳了腹腔镜胆总管囊肿近端切除和吻合术中的注意事项。

【关键词】 腹腔镜;胆总管囊肿

【中图分类号】 R726 R616.5 R575.7

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【Abstract】 Laparoscopic cystectomy for hepatic jejunal anastomosis has been used for the treatment of choledochal cysts for more than 20 years, and the method of operation tends to be mature. At present, with the increase of prenatal detection rate and the timing of surgery, anastomotic stenosis after laparoscopic surgery is the most important cause of reoperation. In order to achieve better surgical results, the author combined with clinical work experience, summarized the precautions in the proximal resection and anastomosis of laparoscopic common bile duct cyst.

【Key words】 Laparoscopes; Choledochal Cyst

先天性胆管扩张症又称“胆总管囊肿”(choledochal cyst, CC),约 80% 的患者在 10 岁前被诊断,而手术是该病唯一的治疗手段。自 1995 年 Farell 等^[1]提出腹腔镜下胆总管囊肿切除和肝门空肠吻合术以来,该术式因具有微创、安全、疗效理想等优势而被广泛采用,并逐渐进入成熟阶段。但近年来,随着越来越多的 CC 患儿在产前被发现,因此新生儿期接受手术的患儿也越来越多。虽然腹腔镜下 CC 手术近期结果令人满意,但术后吻合口(肝门肠吻合口)狭窄时有发生,并成为患儿接受再次手术的最主要原因^[2,3],应引起临床医生的高度重视。

一、腹腔镜下胆总管囊肿切除术后吻合口狭窄及原因分析

文献报道开腹手术吻合口狭窄的发生率为 6%~40%^[4-6],而腹腔镜手术为 0.6%~28.6%^[7-12]。本中心自 2005 年开展腹腔镜下 CC 手术以来,截至

2016 年 1 月已完成腹腔镜 CC 切除肝门空肠吻合术 396 例,吻合口狭窄发生率为 3.8%,平均发生时间为术后 4.7 年(1~10 年)^[13]。从狭窄发生率的数值上看,似乎腹腔镜 CC 手术的治疗效果优于开腹手术,然而仔细分析后发现结果并非如此。第一,几乎所有关于腹腔镜技术切除 CC 的报道都是回顾性的,很多报道在与开腹手术结果进行比较时都依赖于历史对照,但忽略了开腹手术技术已经得到不断改进的事实;第二,在一些研究中病情较重和(或)较复杂的患者往往会接受开腹手术而非腹腔镜手术^[8,14];第三,腹腔镜吻合技术是腹腔镜手术中最困难的操作,需要足够的训练时间和一定的操作天赋。为了吻合方便,许多文献描述的是腹腔镜肝管-肠吻合而非肝门-肠吻合,这样可能忽略肝管狭窄的情况^[3,7,8,13-23];第四,腹腔镜 CC 切除术后随访时间较短,通常不超过 5 年^[15,17-20],因此长期随访结果无法评估,而吻合口狭窄可能发生于术后 10 年或更久^[13,24];第五,为了获得较宽的初始吻合口径(1 cm 左右),有些医生选择保留“喇叭口”(即部分扩张胆管),而残留的病变肝外胆管会增加远期癌变的风险^[25-28],且癌变最常见的受累部位是胆肠

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吻合处或附近的肝管^[29]。

二、腹腔镜下胆总管囊肿切除术注意事项

为尽量避免和减少腹腔镜下胆总管囊肿切除术后吻合口狭窄的发生,笔者认为,在腹腔镜下胆总管囊肿近端切除术和吻合术中应注意以下几点:①吻合口狭窄多发生于Ⅰa型和Ⅳa型囊肿^[4, 30-32],仔细阅读MRCP和术中胆道造影结果,有助于了解肝内胆管及肝管形态;②近端应完整切除扩张的胆总管及肝总管,同时切开左肝管肝外段(有时也包括右肝管),显露左右肝管的开口;③有肝门胆管狭窄的患儿需要切开成型,显露狭窄上的肝管;④对于新生儿和小婴儿,即使切开左右肝管分叉,吻合口径仍小于5 mm,不可留下病变“喇叭口”,应完整切除,可以采用肝门埋入空肠的吻合方式^[33];吻合部并非肝总管,更非胆管,而是肝门(即左右肝管劈开后部位)开口。由于胆管断端深陷肝门内,肝管空肠吻合操作难度大,因此机器人手术更有优势。

此外,腹腔镜手术的短期优势(术后疼痛轻、美容效果好)不能分散我们对长期结果的注意力,应做好术后5年、10年甚至更长时间的随访工作。

总之,胆总管囊肿手术治疗的首要目标是保证患者的长期健康,而腹腔镜技术只是一种微创手术方法,如果想要腹腔镜下CC手术成为新的“金标准”术式,则需要通过根治性囊肿切除和宽大肝门空肠吻合术来实现。

参考文献

- Farello GA, Cerofolini A, Rebonato M, et al. Congenital choledochal cyst: video-guided laparoscopic treatment[J]. Surg Laparosc Endosc, 1995, 5(5): 354-358.
- Diao M, Li L, Cheng W. Recurrence of biliary tract obstructions after primary laparoscopic hepaticojunostomy in children with choledochal cysts[J]. Surg Endosc, 2016, 30(9): 3910-3915. DOI: 10.1007/s00464-015-4697-5.
- Sheng Q, Lv Z, Xu W, et al. Reoperation After Cyst Excision with Hepaticojunostomy for Choledochal Cysts: Our Experience in 18 Cases[J]. Med Sci Monit, 2017, 23: 1371-1377. DOI: 10.12659/msm.900313.
- Kim JH, Choi TY, Han JH, et al. Risk factors of postoperative anastomotic stricture after excision of choledochal cysts with hepaticojunostomy[J]. J Gastrointest Surg, 2008, 12(5): 822-828. DOI: 10.1007/s11605-007-0415-5.
- Kim JW, Moon SH, Park DH, et al. Course of choledochal cysts according to the type of treatment[J]. Scand J Gastroenterol, 2010, 45(6): 739-745. DOI: 10.3109/003655210.03675054.
- Cho MJ, Hwang S, Lee YJ, et al. Surgical experience of 204 cases of adult choledochal cyst disease over 14 years[J]. World J Surg, 2011, 35(5): 1094-1102. DOI: 10.1007/s00268-011-1009-7.
- Senthilnathan P, Patel ND, Nair AS, et al. Laparoscopic Management of Choledochal Cyst-Technical Modifications and Outcome Analysis[J]. World J Surg, 2015, 39(10): 2550-2556. DOI: 10.1007/s00268-015-3111-8.
- Yeung F, Chung PH, Wong KK, et al. Biliary-enteric reconstruction with hepaticoduodenostomy following laparoscopic excision of choledochal cyst is associated with better postoperative outcomes: a single-centre experience[J]. Pediatr Surg Int, 2015, 31(2): 149-153. DOI: 10.1007/s00383-014-3648-x.
- Wang DC, Liu ZP, Li ZH, et al. Surgical treatment of congenital biliary duct cysts[J]. BMC Gastroenterol, 2012, 12: 29. DOI: 10.1186/1471-230X-12-29.
- Jung K, Han HS, Cho JY, et al. Is preoperative subclassification of type I choledochal cyst necessary? [J]. Korean J Radiol, 2012, 13: 112-116. DOI: 10.3348/kjr.2012.13.S1.S112.
- Narayanan SK, Chen Y, Narasimhan KL, et al. Hepaticoduodenostomy versus hepaticojunostomy after resection of choledochal cyst: a systematic review and meta-analysis[J]. J Pediatr Surg, 2013, 48(11): 2336-2342. DOI: 10.1016/j.jpedsurg.2013.07.020.
- Qiao G, Li L, Li S, et al. Laparoscopic cyst excision and Roux-Y hepaticojunostomy for children with choledochal cysts in China: a multicenter study[J]. Surg Endosc, 2015, 29(1): 140-144. DOI: 10.1007/s00464-014-3667-7.
- Tang ST, Yang Y, Wang Y, et al. Laparoscopic choledochal cyst excision, hepaticojunostomy, and extracorporeal Roux-en-Y anastomosis: a technical skill and intermediate-term report in 62 cases[J]. Surg Endosc, 2011, 25(2): 416-422. DOI: 10.1007/s00464-010-1183-y.
- Kim NY, Chang EY, Hong YJ, et al. Retrospective assessment of the validity of robotic surgery in comparison to open surgery for pediatric choledochal cyst[J]. Yonsei Med J, 2015, 56: 737-743. DOI: 10.3349/ymj.2015.56.3.737.
- Hong L, Wu Y, Yan Z, et al. Laparoscopic surgery for choledochal cyst in children: a case review of 31 patients[J]. Eur J Pediatr Surg, 2008, 18: 67-71. DOI: 10.1055/s-2008-1038486.
- Lee KH, Tam YH, Yeung CK, et al. Laparoscopic excision of choledochal cysts in children: an intermediate-term report[J]. Pediatr Surg Int, 2009, 25: 355-360. DOI: 10.

- 1007/s00383-009-2343-9.
- 17 Nguyen TL, Hien PD, le Dung A, et al. Laparoscopic repair for choledochal cyst: lessons learned from 190 cases [J]. J Pediatr Surg, 2010, 45: 540-544. DOI: 10.1016/j.jpedsurg.2009.08.013.
- 18 Diao M, Li L, Cheng W. Laparoscopic versus open Roux-Y hepatojejunostomy for children with choledochal cysts: intermediate-term follow-up results [J]. Surg Endosc, 2011, 25: 1567-1573. DOI: 10.1007/s00464-010-1435-x.
- 19 Liem NT, Pham HD, le Dung A, et al. Early and intermediate outcomes of laparoscopic surgery for choledochal cysts with 400 patients [J]. J Laparoendosc Adv Surg Tech, 2012, 22(6): 599-603. DOI: 10.1089/lap.2012.0018.
- 20 Wang B, Feng Q, Mao JX, et al. Early experience with laparoscopic excision of choledochal cyst in 41 children [J]. J Pediatr Surg, 2012, 47: 2175-2178. DOI: 10.1016/j.jpedsurg.2012.09.004.
- 21 Jang JY, Yoon YS, Kang MJ, et al. Laparoscopic excision of a choledochal cyst in 82 consecutive patients [J]. Surg Endosc, 2013, 27: 1648-1652. DOI: 10.1007/s00464-012-2646-0.
- 22 Alizai NK, Dawrant MJ, Najmaldin AS. Robot-assisted resection of choledochal cysts and hepatojejunostomy in children [J]. Pediatr Surg Int, 2014, 30: 291-294. DOI: 10.1007/s00383-013-3459-5.
- 23 Gander JW, Cowles RA, Gross ER, et al. Laparoscopic excision of choledochal cysts with total intracorporeal reconstruction [J]. J Laparoendosc Adv Surg Tech A, 2010, 20: 877-881. DOI: 10.1089/lap.2010.0123.
- 24 Kemmotsu H, Mouri T, Muraji T. Congenital stenosis of the hepatic duct at the porta hepatis in children with choledochal cyst [J]. J Pediatr Surg, 2009, 44: 512-516. DOI: 10.1016/j.jpedsurg.2008.06.011.
- 25 Watanabe Y, Toki A, Todani T. Bile duct cancer developed after cyst excision for choledochal cyst [J]. J Hepatobiliary Pancreat Sci, 1999, 6(3): 207-212.
- 26 Liu YB, Wang JW, Devkota KR, et al. Congenital choledochal cysts in adults: twenty-five-year experience [J]. Chin Med J (Engl), 2007, 120(16): 1404-1407.
- 27 Stringer MD. Laparoscopic management of choledochal cysts: is a keyhole view missing the big picture? [J]. Pediatr Surg Int, 2017, 33(6): 651-655. DOI: 10.1007/s00383-017-4089-0.
- 28 Ohtsuka H, Fukase K, Yoshida H, et al. Long-term outcomes after extrahepatic excision of congenital choledochal cysts: 30 years of experience at a single center [J]. Hepatogastroenterology, 2015, 62(137): 1-5.
- 29 Lee SE, Jang JY. Development of biliary malignancy after cyst excision for congenital choledochal cysts: what should we do? [J]. J Gastroenterol Hepatol, 2013, 28: 210-212. DOI: 10.1111/jgh.12079.
- 30 Jung K, Han HS, Cho JY, et al. Is preoperative subclassification of type I choledochal cyst necessary? [J]. Korean J Radiol, 2012, 13: 112-116. DOI: 10.3348/kjr.2012.13.S1.S112.
- 31 Dutta HK. Hepatic lobectomy and mucosectomy of intrahepatic cyst for type IV-A choledochal cyst [J]. J Pediatr Surg, 2012, 47(11): 2146-2150. DOI: 10.1016/j.jpedsurg.2012.07.008.
- 32 Perdikakis E, Chryssou EG, Koulentaki M, et al. Assessment of a postoperative anastomotic stricture following correction surgery of a type IVa choledochal cyst using Gd-EOB-DTPA-enhanced magnetic resonance cholangiography [J]. Clin J Gastroenterol, 2011, 4(6): 396-400. DOI: 10.1007/s12328-011-0261-6.
- 33 Chang X, Zhang X, Xiong M, et al. Laparoscopic-assisted cyst excision and ductoplasty plus widened portoenterostomy for choledochal cysts with a narrow portal bile duct [J]. Surg Endosc, 2019, 33(6): 1998-2007. DOI: 10.1007/s00464-018-06635-4.

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