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·文献综述·

经皮经肝胆囊穿刺引流术在胆囊炎急性发作治疗中的应用现状

史洪石，靳君华 综述 赵海平 审校

（内蒙古医科大学附属医院 肝胆外科，内蒙古 呼和浩特 010000）

摘 要 B 超引导下经皮经肝胆囊穿刺引流术（PTGBD）逐步成为胆囊炎急性水肿期首选的治疗措施。随着手术器械不断更新及医生操作熟练度的提高，PTGBD 技术也不断在发展。目前，PTGBD 的文献报道大部分仅限于老年急性胆囊炎患者，但是关于其具体优点、适应证及二期手术胆囊切除术时机方面值得探究，笔者就上述 3 点做一综述，以供临床参考。

关键词 胆囊炎，急性；穿刺抽液术；综述文献
中图分类号： R657.4

Current status of application of percutaneous transhepatic gallbladder puncture and drainage in treatment of cholecystitis in acute stage

SHI Hongshi, JIN Junhua, ZHAO Haiping

(Department of Hepatobiliary Surgery, Affiliated Hospital, Inner Mongolia Medical University, Hohhot 010000, China)

Abstract B ultrasound-guided percutaneous transhepatic gallbladder drainage (PTGBD) has gradually become the first choice for treatment of acute edematous cholecystitis. The PTGBD technique has been developed with the continued improvement of the surgical instruments and surgeons' proficiency. At present, the reported literature concerning PTGBD is mostly limited to acute cholecystitis in elderly patients, but no systematic reports are available on its specific advantages, indications and timing for subsequent cholecystectomy. In this article, the authors address the above three aspects to provide indications for clinical practice.

Key words Cholecystitis, Acute; Paracentesis; Review
CLC number: R657.4

经皮经肝胆囊穿刺引流（percutaneous transhepatic gallbladder puncture and drainage，PTGBD）首次由Burckhardt在1921年做出报告[1]。在1980年，经皮经肝胆囊穿刺引流术方才应用于临床实践[2-4]。直到19世纪80年代，介入科医师对这项技术更为熟练成熟，并发表了第1个病例报告[5]。自此，这项治疗措施对胆囊炎急性发作，提供了一个有效的解决方案[6-9]。林晓镰等[10]在我国首先对经皮经肝胆管造影及引流术做出报道，为PTGBD在

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作者简介： 史洪石，内蒙古医科大学附属医院硕士研究生，主要从事肝胆外科方面的研究。
通信作者： 赵海平， Email: zhaohaiping007@aliyun.com

我国的发展创造了良好的前提。王光星等[11]初步探讨了超声从诊断转向治疗的体会，并取得了满意的临床答案。但这项技术一直倾向用于治疗梗阻性黄疸的患者，达到减黄目的，以减少当时由于经验不足，而穿刺肝管导致失败的发生率。王孝华等[12]对PTGBD治疗胆囊急性发作的可行性，进行临床试验，并取得满意得结果。时至今日，PTGBD的文献报道部分仅限于老年人急性胆囊炎合并脏器功能不全、手术风险较大或手术禁忌证者，但是具体适应证人群及配合二期手术胆囊切除术时机方面暂无系统报道。本文就上述3点做一综述，以供临床参考。

1　PTGBD 的优点

超声引导下PTGBD能减少急诊手术和麻醉双重打击带来的风险，为患者渡过急性期、争取择期手术提供了宝贵的时间[13]。超声灵活，操作方便、无放射性损害，安全性高，仅需要局麻及少量镇静处理。患者多因年老体弱和病情危重而不宜搬动，可在床旁进行超声快速准确操作，手术在局麻下进行。穿刺时超声可精确定位胆囊位置，可在动态下选择穿刺路径，操作精准，成功率较高且手术并发症少[14]。同时，对引流出的胆汁行细菌学检查及药敏培养，可以更好地指导临床合理用药，提高治疗效果。胆囊急性水肿期胆囊胀大，经PTGBD治疗，穿刺成功率高，可以迅速减轻胆囊压力，有效缓解症状，使患者免于急性期行手术，降低了手术风险，也符合损伤控制外科的理念[15-16]。特别是老年患者，在胆囊炎急性发作时，由于急性炎症期，导致原有基础疾病瞬时发作，若不能及时处理，易产生严重后果。虽然PTGBD不能取代手术治疗，但该治疗方法可迅速减轻患者症状，改善患者全身状态，是一种非常重要的姑息性治疗手段[17]。有研究[18]统计，技术成功率为95%~100%，有效率为70%~85%。经翔等[19]成功对753例患者行791次胆道穿刺引流，综合并发症发生率为17.3%，其中严重并发症发生率仅为1.1%，未出现致死性并发症。综上所述，该项技术的风险收益比较高，且操作方便，为其后期推广奠定了基础。

2　适应证

2.1　老年人急性胆囊炎

据统计[20]，老年急性胆囊炎患者行急诊胆囊切除术的病死率高达14%~19%，在这种高病死率的情况下，急诊手术则将不再是首要的治疗措施。而对于老年患者，本身不是诊断胆囊炎严重程度的因素[21]，但老年患者应激能力较青中年人群低。因此，临床症状常不典型，早期诊断率较低，若出现较为明显的临床症状，则大多数已处于疾病恶化阶段，而多数患者伴有高血压、心脏病、糖尿病等慢性基础疾病。所以，老年患者胆囊炎急性发作的手术风险较高[22-24]。经检索国内外大量文献，老年患者急性胆囊炎一期行PTGBD术，均取得了较好的疗效。

2.2　急性中、重度胆囊炎

急性胆囊炎严重程度评估标准首先在全世界TG07[25-27]中提出，其中急性胆囊炎的严重程度分为以下3类：轻度（I级），中度（II级）和严重（III级）。经过TG07，TG13赋予急性胆囊严重程度新的诊断标准[21]。其中II级（中度）急性胆囊炎，与以下条件有关：⑴ 白细胞计数升高（>18 000/mm^3）；⑵ 右上腹部触摸肿块；⑶ 主诉时间（>72 h）；⑷ 局限性炎症（坏疽性胆囊炎，气肿性胆囊炎等）。若合并凝血、肝肾功损害等严重并发症为III级，而I级（轻度）急性胆囊炎：不符合“三级”或“二级”急性胆囊炎的标准。TG13中明确指出，中、重度的急性胆囊炎不易立即行胆囊切除术，而PTGBD引流术既降低了手术的风险，又能快速解决患者症状，为临床医生提供了较为安全的治疗方法。

2.3　急性结石嵌顿性胆囊炎

急性结石性胆囊炎发病较急，当结石嵌顿胆囊管突然受阻，胆囊内压力增高，胆囊管黏膜充血、水肿，则导致胆囊压力进一步升高，形成恶性循环。如果梗阻不能解除，高压力的胆囊内压，促使胆囊壁出现血运障碍，导致胆囊壁发生穿孔。当胆囊内已存在感染时，胆囊极易坏疽，病情迅速恶化[28]。由于胆囊管水肿，与周围组织粘连严重，导致胆囊管、肝总管及胆总管解剖不清，术中肝总管或胆总管损伤机率较大。有研究[29-30]表明,颈部结石嵌顿是胆道损伤的高危因素，急诊

行腹腔镜胆囊切除术或开腹胆囊切除术后极易产生如胆漏、胆管炎、胆周积液以及胆囊床渗血等严重并发症，严重影响患者的预后及生活质量。

2.4 急性胆囊炎并发胆总管结石（结石直径<5 cm）

继发胆总管结石可以认为是胆囊结石肝外并发症之一[31]。直径<0.5 cm的胆囊结石较易通过弯曲的胆囊管螺旋瓣，掉落至胆总管。期间，小结石通过Oddi括约肌，导致其痉挛，患者则出现较为强烈的腹痛，若痉挛长时间不能缓解，患者可出现短暂巩膜轻度黄染，严重时可诱发急性胰腺炎。患者在急性胆囊炎发作过程中，行超声或磁共振胆道水成像中，可发现较小的胆总管结石，这可以成为胆总管探查的指征[32]。胆管纤细在急性期探查有暴露胆道困难、增加胆道损伤及术后胆管狭窄的风险，PTGBD即可缓解急性胆囊炎的症状，减轻胆道压力，又可通过术后经PTGBD管造影确诊有无胆管结石，避免胆道阴性探查，也符合损伤控制外科的理念。

2.5 急性胰腺炎合并急性胆囊炎

目前关于急性胰腺炎合并急性胆囊炎机制尚不明确[33-34]。可能与急性胰腺炎时，机体出现休克，导致胆囊黏膜缺血，加之患者长期禁食水，胆囊排空延迟，胆汁淤积等导致胆囊急性炎症发生。此外，急性胰腺炎发作时可出现胰头水肿、十二指肠乳头水肿，胆道压力增大导致胆汁排出障碍，进而导致胆囊炎发作。急性重症胰腺炎不易行手术治疗，若合并急性胆囊炎，炎症进一步加重。此时，行PTGBD术，为控制损伤的最佳选择。李刚等[35]观察571例急性胰腺炎患者。其中合并急性胆囊炎108例，除有明显禁忌外，76例成功行PTGBD术。术后患者各项观察指标，差异有统计学意义（$P<0.05$）。综上所述，急性胰腺炎合并急性胆囊炎时，行PTGBD术，可有效减轻炎症损伤，延缓病情进展，为急性胰腺炎合并急性胆囊炎的治疗，提供新思路。

3 二期手术的时机

PTGBD虽然可迅速缓解患者的症状，且高效、经济。但PTGBD不能从根本上解除患者病因，因此应待其全身状况好转后行胆囊切除术，但手术时机目前尚无统一标[36-38]。关于PTGBD术后行LC时机的选择存在众多争议，术后短时间内行LC术，胆囊情况无明显改善，且术后并发症发生率高，影响患者术后早期恢复，不符合目前外科快速康复理念。有研究[39]显示，2~4个月行LC胆囊壁厚度明显低于2个月以内行LC的患者，表明2个月内患者胆囊壁可能仍处于水肿状态，炎症尚未消退，胆囊及三角的显露较为困难，从而导致中转为开腹的比例大大增加。因此，若2个月后，复查超声，患者的胆囊壁厚度于较前相比无明显改变，表明其炎症已消退，此时行手术切除较为容易。PTGBD后行LC的手术时机会对患者的恢复产生重要影响，因此应合理评估患者的基本情况、择期行LC，以期达到最好的治疗效果[40]。

综上所述，急性胆囊炎发病率极高，而急诊行腹腔镜或开腹胆囊切除术术中及术后并发症发生率高。此外，急性胆囊炎为良性病，一旦出现并发症不易被家属接受，这些一直困扰外科医生。而PTGBD创伤小、便捷、高效、应用广泛，改善了患者应激的状态，为二期手术治疗创造了条件。但PTGBD根据患者的情况，可能置管时间较长，影响患者是生活质量及外观，但对比急性期手术造成的并发症相比，无论是医生和患者都可以欣然接受。故今后其应用空间广泛，尤其在基层医院将广受欢迎，但关于适应证及二期手术时机，仍需不断探索。

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