

· 病例报告 ·

DOI: 10.12449/JCH260622

胆囊穿孔伴出血致网膜囊巨大血性脓肿1例报告

郭贤德, 王 奥, 张雅男, 李 宁

天津医科大学附属南开医院肝胆胰外科, 天津 300100

通信作者: 李宁, ningli851023@sina.com (ORCID: 0000-0001-9433-1350)

摘要: 亚急性胆囊炎并发胆囊穿孔通常表现为胆囊周围炎性病变, 引发网膜囊大量积血并继发感染, 形成巨大血性脓肿的情况极为罕见。本文报告了1例68岁女性患者, 因胆囊颈部嵌顿结石引发局部穿孔伴出血, 继而形成网膜囊巨大血性脓肿。该患者有30年胆囊结石病史, 此次因腹痛加剧、寒战和发热, 经三级转诊至天津医科大学附属南开医院。经过多学科团队的综合评估, 患者接受紧急腹腔镜胆囊切除术和网膜囊血性脓肿清除术。术后患者恢复良好, 10天后顺利出院, 随访期间身体状况良好。

关键词: 自发性穿孔; 胆石; 腹膜腔; 脓肿

基金项目: 天津市医学重点学科建设资助(TJYXZDXK-3-028C)

Massive hemorrhagic abscess in the omental bursa caused by gallbladder perforation with bleeding: A case report

GUO Xiande, WANG Ao, ZHANG Yanan, LI Ning

Department of Hepatopancreatobiliary Surgery, Tianjin Nankai Hospital, Tianjin Medical University, Tianjin 300100, China

Corresponding author: LI Ning, ningli851023@sina.com (ORCID: 0000-0001-9433-1350)

Abstract: Subacute cholecystitis complicated by gallbladder perforation often manifests as inflammatory lesions around the gallbladder, and it is extremely rare for this condition to cause massive hemorrhage into the omental bursa with secondary infection and result in massive hemorrhagic abscess. This article reports a case of a female patient, aged 68 years, who experienced massive hemorrhagic abscess in the omental bursa due to localized perforation and bleeding caused by a stone impacted in the gallbladder neck. The patient had a history of gallstones for 30 years and was admitted to Tianjin Nankai Hospital, Tianjin Medical University, after tertiary referral due to aggravated abdominal pain, chills, and fever. After comprehensive assessment by a multidisciplinary team, the patient underwent emergency laparoscopic cholecystectomy and clearance of the hemorrhagic abscess in the omental bursa. The patient recovered well and was discharged on day 10 after surgery, with good conditions during follow-up.

Key words: Spontaneous Perforation; Gallstones; Peritoneal Cavity; Abscess

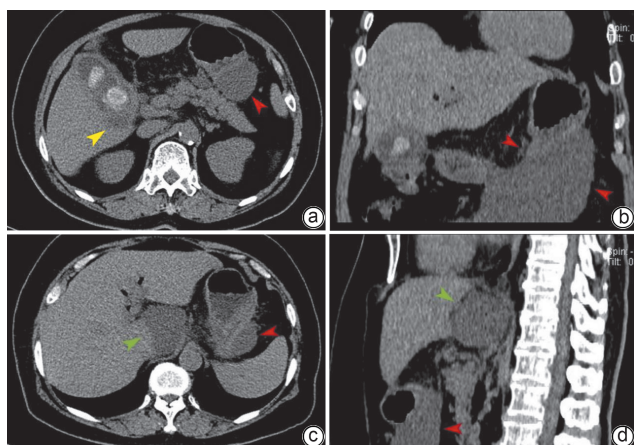
Research funding: Tianjin Key Medical Discipline Construction Project (General Surgery, TJYXZDXK-3-028C)

1 病例资料

患者女性, 68岁, 因“上腹痛伴寒战、发热2周”于2020年7月19日经三级转诊入住天津医科大学附属南开医院。患者有30年胆囊结石病史, 胆囊炎反复发作, 既往有高血压病史。当地医院腹部计算机体层成像(computed tomography, CT)提示胆囊结石、胆囊炎伴腹腔积液, 超声引导下穿刺发现血凝块, 考虑腹腔内出血可能, 为求进一步诊疗转诊至本院。入院时生命体征: 体温

38.5℃, 心率105次/min, 血压150/90 mmHg, 上腹部中度压痛, 可扪及约12 cm×10 cm肿块, 墨菲征阳性。实验室检查: 白细胞计数 $22.95 \times 10^9/L$, 中性粒细胞比例89.9%; 血清降钙素原0.69 ng/L, C反应蛋白149.99 mg/L; 血红蛋白82 g/L, 血清白蛋白26.7 g/L。入院当天腹部超声提示: 胆囊多发结石, 可疑胆囊穿孔, 胆囊周围及腹腔局限性积液。因患者上腹胀痛逐渐加重, 且超声提示炎症进展, 遂行超声引导下胆囊及中上腹穿刺; 胆囊内抽出脓性液体, 中上腹积液区置管后引出血凝块。入院后

给予头孢哌酮舒巴坦抗感染,输注人血白蛋白等支持治疗。为进一步明确病因及腹部病变进展情况,入院第2天行全腹CT检查,影像结果除胆囊结石、胆囊炎和可疑胆囊穿孔外,网膜囊存在巨大混杂密度影,提示存在严重感染。多学科团队会诊,考虑为严重腹腔感染合并腹腔内出血,建议完善腹部增强CT及腹腔动脉CT血管成像以排除腹腔内大血管出血。增强CT示:胆囊炎、胆囊结石、胆囊颈部穿孔伴胆囊周围脓肿,网膜囊感染性血液聚集,上方达膈肌及脾窝,下方达脐部以下;胰腺组织无异常(图1)。CT血管成像提示:腹腔动脉及分支未见明显缺损,排除大血管损伤。至此,明确诊断为结石性胆囊炎、胆囊颈部穿孔伴周围脓肿,网膜囊巨大血性脓肿,但术前未能厘清胆囊穿孔伴周围脓肿与网膜囊血性脓肿之间的相关性。



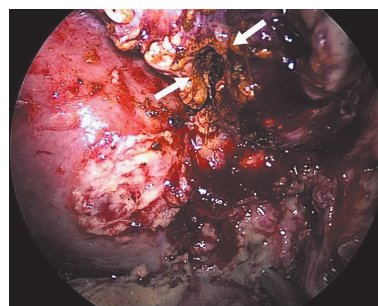
注:a,腹部CT平扫轴位示:胆囊多发结石伴颈部穿孔(黄色箭头所示),网膜囊下隐窝感染性液体(红色箭头所示);b,腹部CT平扫冠状重建示:网膜囊下隐窝大量感染性液体(红色箭头所示);c,腹部CT平扫轴位示:网膜囊上隐窝感染性液体聚集(绿色箭头所示),脾隐窝感染性液体(红色箭头所示);d,腹部CT平扫矢状重建示:网膜囊上隐窝感染性液体聚集(绿色箭头所示),下隐窝胰腺前方感染性液体(红色箭头所示)。CT,计算机断层成像。

图1 腹部CT影像

Figure 1 Abdominal CT imaging

入院第3天,患者病情继续加重,血红蛋白由82 g/L降至68 g/L,随即行急诊腹腔镜检查。术中发现胆囊被大网膜和结肠致密包裹,与腹腔其他组织完全隔离;胆囊呈亚急性炎症表现,颈部与胃窦及十二指肠严重粘连;胆囊颈部嵌顿大结石、局部坏疽穿孔(图2),穿孔周围积聚脓血样胆汁,网膜囊大量陈旧性血凝块及血性脓液。上述发现证实了术前影像诊断,并明确网膜囊血性脓肿系胆囊颈部穿孔所致。先行腹腔镜胆囊切除术,后经肝胃韧带进入上隐窝,经胃结肠韧带穿刺置管处进入下隐窝,最终到达脾隐窝,并离断胃胰皱襞以贯通上下隐窝。彻底清除血凝块、血性脓液及感染组织碎片,并冲

洗各隐窝及腹腔。于肝周、网膜孔及网膜囊分别放置腹腔引流管。术中输血400 mL。术中初步诊断为亚急性胆囊炎、胆囊结石、胆囊颈部穿孔伴出血及网膜囊巨大血性脓肿。切除标本肉眼所见:胆囊壁厚0.3~0.5 cm,颈部可见两处直径为0.5~1 cm的缺损。镜下所见:黏膜广泛糜烂、坏死及溃疡形成,肌层及浆膜层断裂,可见炎性肉芽组织及大量中性粒细胞浸润。病理诊断:胆囊黏膜糜烂、坏死、溃疡形成,局部组织断裂,病变符合穿孔(图3)。术后患者恢复良好,10天顺利出院,随访期间身体状况稳定,无并发症发生。



注:白色箭头所示为胆囊颈部穿孔。

图2 腹腔镜术中图片

Figure 2 Laparoscopic intraoperative images

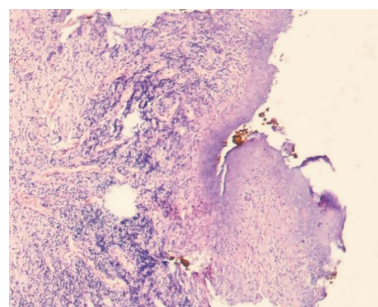


图3 胆囊切除后病理图片(苏木精-伊红染色,×100)

Figure 3 Pathological image of the gallbladder after resection (HE staining, ×100)

2 讨论

亚急性胆囊炎是介于急性与慢性胆囊炎之间的一种临床类型,通常由胆囊结石引发,表现为反复发作的胆囊炎症。结石长期阻塞胆囊管可导致胆汁淤积和持续性炎症,进而诱发胆囊壁局部坏死和穿孔。此类穿孔称为亚急性局限性穿孔(Niemeier II型)^[1],其特点是穿孔部位被周围组织(如大网膜、肠管等)包裹,胆汁和炎性内容物被局限于胆囊周围,形成局限性脓肿或炎性包块^[2]。尽管感染未扩散至游离腹腔,Niemeier II型胆囊穿孔仍是一种严重的胆囊疾病,若未及时处理,可能导致感染扩散及严重的并发症。本例患者术中证实,胆囊

因长期反复炎症被大网膜、结肠、胃窦及十二指肠致密包裹,与腹腔其他组织完全隔离。胆囊颈部局部坏疽穿孔,血性脓液及感染胆汁积聚于胆囊三角及网膜孔周围,并逐步蔓延至网膜囊,形成罕见的巨大血性脓肿。其机制可能为穿孔持续存在、炎症侵蚀局部小血管导致出血,以及在较高压力下,使感染性胆汁和血液沿自然解剖通道扩散。因此,本病例本质上仍属于局限性穿孔,但继发了较为特殊的并发症。术前超声和CT检查虽提示胆囊穿孔,但未能明确胆囊穿孔与网膜囊巨大脓肿及腹腔内出血的相关性^[3-4]。

对比该患者外院与本院的腹部CT检查结果可见,病情从单纯胆囊炎合并腹腔积液,迅速进展为网膜囊巨大混杂密度影,提示存在活动性出血和感染扩散。虽然影像学提示网膜囊“感染性血液积聚”,但将其与胆囊穿孔相关联是诊断的关键。网膜囊脓肿多继发于胰腺炎或胃十二指肠穿孔,源于胆囊穿孔者的相关报道极少^[5-6]。本病例通过影像学排除胰腺炎,并结合胆囊结石病史、穿孔征象及穿刺结果,最终将感染源锁定于胆囊。

对于Niemeier II型胆囊穿孔的治疗,经皮肝穿刺胆囊引流可作为急诊手术的临时性替代方案^[7]。对于高龄或合并多种基础疾病的患者,先行穿刺引流后行序贯性腹腔镜胆囊切除术,已被临床广泛接受^[8]。然而,对于已形成复杂脓肿,特别是合并活动性出血者,手术清创和出血控制往往是更彻底的治疗选择。在手术技术成熟、设备完备的医疗单位,对合并坏疽及穿孔的急性胆囊炎行腹腔镜手术也被证实安全可行^[9-11]。本例患者行急诊腹腔镜检查的同时完成胆囊切除术,并彻底清除了网膜囊各隐窝内的感染性坏死组织,有效控制了腹腔内感染,快速解除了脓毒症状态,手术效果良好。

胆囊穿孔的预后受多种因素影响,早期诊断和及时干预对改善预后至关重要^[12-13]。临床医生应提高对胆囊穿孔,尤其是其不典型表现的认识,采取多学科协作及个体化治疗的策略,是处理此类复杂病例的关键^[7]。

伦理学声明: 本例报告已获得患者及其家属知情同意。

利益冲突声明: 本文不存在任何利益冲突。

作者贡献声明: 郭贤德负责检索文献,拟定论文思路,撰写论文;王奥、张雅男参与收集数据,修改论文;李宁负责指导、修改论文并最终定稿。

参考文献:

- [1] TSALIKIDIS C, MITSALA A, SOUFTAS V, et al. Gallbladder perforation. A case series and review of the literature[J]. Ann Ital Chir, 2020, 91: S2239253X20032661.
- [2] LIU J, SONG LQ, GUAN KL, et al. Unusual case of Niemeier type II

gallbladder perforation: Case report and literature review[J]. J Int Med Res, 2024, 52(6): 03000605241257452. DOI: 10.1177/03000605241257452.

- [3] AUSANIA F, GUZMAN SUAREZ S, ALVAREZ GARCIA H, et al. Gallbladder perforation: Morbidity, mortality and preoperative risk prediction[J]. Surg Endosc, 2015, 29(4): 955-960. DOI: 10.1007/s00464-014-3765-6.
- [4] JANSEN S, DOERNER J, MACHER-HEIDRICH S, et al. Outcome of acute perforated cholecystitis: A register study of over 5000 cases from a quality control database in Germany[J]. Surg Endosc, 2017, 31(4): 1896-1900. DOI: 10.1007/s00464-016-5190-5.
- [5] BAKSHI S. Pancreatic abscess within hepato-gastric ligament: Case report of an extremely rare disease[J]. BMC Surg, 2020, 20(1): 20. DOI: 10.1186/s12893-020-0688-0.
- [6] LI SF, XU JW, LIU GM, et al. Retroperitoneal laparoscopic debridement and drainage for pancreatic abscess[J]. J Vis Exp, 2024 (205): e66162. DOI: 10.3791/66162.
- [7] SONG LM, LI XM, YANG PS. Discussion on the timing of sequential LC for acute cholecystitis after percutaneous transhepatic gallbladder puncture and drainage[J]. Chin J Hepatobiliary Surg, 2021, 27(10): 753-756. DOI: 10.3760/cma.j.cn113884-20210420-00143. 宋黎明, 李学民, 杨鹏生. 经皮经肝胆囊穿刺引流术后序贯行LC治疗急性胆囊炎手术时机的探讨[J]. 中华肝胆外科杂志, 2021, 27(10): 753-756. DOI: 10.3760/cma.j.cn113884-20210420-00143.
- [8] ZHANG WQ, PAN BM, ZHANG QY, et al. Application of different drainage methods in patients with acute cholecystitis[J/OL]. Chin J Hepat Surg (Electronic Edition), 2025, 14(1): 135-139. DOI: 10.3877/cma.j.issn.2095-3232.2025009. 张挽乾, 潘佰猛, 张秋雨, 等. 不同引流方法在急性胆囊炎患者中的应用[J/OL]. 中华肝胆外科杂志, 2025, 14(1): 135-139. DOI: 10.3877/cma.j.issn.2095-3232.2025009.
- [9] ZHANG C, SHEN SS, WANG MH, et al. Laparoscopic cholecystectomy with or without percutaneous transhepatic gallbladder drainage for acute severe cholecystitis: A meta-analysis[J]. Chin J Hepatobiliary Surg, 2019, 25(12): 910-914. DOI: 10.3760/cma.j.issn.1007-8118.2019.12.007. 张崇, 沈思思, 王明辉, 等. 直接行腹腔镜胆囊切除术与联合经皮经肝胆囊穿刺引流治疗急性重症胆囊炎的荟萃分析[J]. 中华肝胆外科杂志, 2019, 25(12): 910-914. DOI: 10.3760/cma.j.issn.1007-8118.2019.12.007.
- [10] ZHANG XD, WANG XX, XIONG J, et al. Clinical experience in laparoscopic treatment of gallbladder perforation[J]. J Minim Access Surg, 2023, 19(1): 80-84. DOI: 10.4103/jmas.jmas_227_21.
- [11] MENG Y, BAHETI KLF, MA ZG, et al. Application values of difficulty scoring system of laparoscopic cholecystectomy for acute cholecystitis[J/OL]. Chin J Hepat Surg (Electronic Edition), 2024, 13(2): 169-175. DOI: 10.3877/cma.j.issn.2095-3232.2024.02.009. 孟娜, 巴合提·卡力甫, 马志刚, 等. 腹腔镜胆囊切除术难度评分系统在急性胆囊炎治疗中的应用价值[J/OL]. 中华肝胆外科杂志, 2024, 13(2): 169-175. DOI: 10.3877/cma.j.issn.2095-3232.2024.02.009.
- [12] JANSEN S, STODOLSKI M, ZIRNGIBL H, et al. Advanced gallbladder inflammation is a risk factor for gallbladder perforation in patients with acute cholecystitis[J]. World J Emerg Surg, 2018, 13: 9. DOI: 10.1186/s13017-018-0169-2.
- [13] ALBISHER HM, FOULA MS, ALGHUSNAH ES, et al. Risk factors and outcomes in acute perforated gallbladder: A retrospective cohort study[J]. Asian J Surg, 2023, 46(6): 2299-2303. DOI: 10.1016/j.asjsur.2022.09.109.

收稿日期: 2025-08-29; 录用日期: 2025-12-02

本文编辑: 王莹

引证本文: GUO XD, WANG A, ZHANG YN, et al. Massive hemorrhagic abscess in the omental bursa caused by gallbladder perforation with bleeding: A case report[J]. J Clin Hepatol, 2026, 42(6): 1388-1390.

郭贤德, 王奥, 张雅男, 等. 胆囊穿孔伴出血致网膜囊巨大血性脓肿1例报告[J]. 临床肝胆病杂志, 2026, 42(6): 1388-1390.