

肝内胆管原发性异位肝细胞癌1例并文献复习

黄杰¹, 何晓^{2*}

¹赣南医科大学第一临床医学院, 江西 赣州

²赣南医科大学第一附属医院肝胆胰外科, 江西 赣州

收稿日期: 2025年10月11日; 录用日期: 2025年11月4日; 发布日期: 2025年11月13日

摘要

目的: 探讨肝内胆管异位肝细胞癌(EHCC)的临床病理特征、诊断及治疗策略。方法: 回顾性分析1例肝内胆管EHCC患者的临床资料, 并复习相关文献。结果: 患者因梗阻性黄疸就诊, 术前影像学及实验室检查误诊为肝内胆管癌, 行右半肝切除 + 胆管重建术后病理证实为EHCC。免疫组化显示HepPar-1、Glypican-3阳性。术后1个月行预防性TACE, 随访未见复发。结论: EHCC罕见且易误诊, 联合影像学、肿瘤标志物及胆道镜活检有助于术前诊断, 本病例通过根治性手术获得了良好的短期效果, 与文献报道一致。

关键词

异位肝细胞癌, 肝内胆管, 胆道肿瘤, 免疫组化, 诊断

Primary Ectopic Hepatocellular Carcinoma in the Intrahepatic Bile Duct: A Case Report and Literature Review

Jie Huang¹, Xiao He^{2*}

¹First Clinical Medical College of Gannan Medical University, Ganzhou Jiangxi

²Department of Hepatobiliary and Pancreatic Surgery, First Affiliated Hospital of Gannan Medical University, Ganzhou Jiangxi

Received: October 11, 2025; accepted: November 4, 2025; published: November 13, 2025

Abstract

Objective: To investigate the clinicopathological characteristics, diagnostic approaches, and manage-

*通讯作者。

文章引用: 黄杰, 何晓. 肝内胆管原发性异位肝细胞癌 1 例并文献复习[J]. 临床医学进展, 2025, 15(11): 1212-1218.
DOI: 10.12677/acm.2025.15113212

ment of ectopic hepatocellular carcinoma (EHCC) arising in the intrahepatic bile duct. **Methods:** Clinical data from one patient with EHCC were retrospectively reviewed, along with a literature review. **Results:** The patient presented with obstructive jaundice and was initially misdiagnosed with intrahepatic cholangiocarcinoma based on imaging and laboratory findings. EHCC was confirmed postoperatively via pathology and immunohistochemistry (HepPar-1+, Glypican-3+) after right hemihepatectomy with bile duct reconstruction. Prophylactic TACE was administered for one month postsurgery, with no recurrence during follow-up. **Conclusion:** Ectopic hepatocellular carcinoma (EHCC) is rare and prone to misdiagnosis. The combination of imaging, tumor markers, and cholangioscopy-guided biopsy facilitates preoperative diagnosis. This case achieved favorable short-term outcomes through radical surgery, consistent with literature reports.

Keywords

Ectopic Hepatocellular Carcinoma, Intrahepatic Bile Duct, Biliary Tract Tumors, Immunohistochemistry, Diagnosis

Copyright © 2025 by author(s) and Hans Publishers Inc.

This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).

<http://creativecommons.org/licenses/by/4.0/>



Open Access

1. 引言

异位肝细胞癌指的是生长于肝外器官或组织的肝细胞癌[1]。已有报道异位肝可发生于胆囊、胆管、腹膜后、肾上腺、胰腺、脾和膈肌,总的发病率大概为 0.24%~0.47% [2] [3],而异位肝细胞癌则更为罕见。在一定程度上,虽然异位肝的组织结构与正常肝脏组织结构相似,但因其结构功能不完善而导致胆汁引流不畅等,可能会促进其癌变[4]。本次报道的是 1 例生长于肝内胆管的肝细胞癌,并接受了手术治疗,术后病理提示为肝细胞癌。

2. 临床资料

患者,男,56 岁,因上腹部疼痛 1 周于 2024 年 2 月 16 日入院。患者于 1 周前无明显诱因出现上腹痛,隐痛,伴腹胀,尿黄,查体可见皮肤巩膜黄染,上腹部轻压痛,无反跳痛。实验室检查:总胆红素(氧化法) 173.9 umol/L,直接胆红素(氧化法) 154.5 umol/L;肿瘤相关抗原 199 (电化学发光) 330 U/ml, AFP 4.86 ng/ml;乙肝表面抗原 168 ng/ml,乙肝 e 抗体 >4.5 PEIU/ml,乙肝核心抗体 >45 PEIU/ml;乙肝病毒 DNA 定量(HBV-DNA) 1.93×10^7 IU/ml;上腹部(肝脏、胆、脾、胰) CT 平扫 + 增强(图 1): 1. 肝门区及肝右叶胆管内铸形异常密度并其上游肝内胆管扩张,胆管型 IPMN? 建议结合 ERCP 检查;上腹部(肝脏,胆,脾,胰) MR 平扫 + 增强(图 2): 1. 肝门区胆管壁增厚、管腔狭窄,不除外胆管细胞 Ca 可能性大,肝内胆管扩张。初步诊断为肝内胆管癌。

患者接受了右半肝 + 尾叶切除术合并左肝管空肠吻合术(Roux-en-Y) + 局部淋巴结清扫 + 胆道镜探查术。术中切开胆总管,胆道镜探查示右肝管瘤栓,胆总管及左肝管未见肿瘤,术中冰冻示左肝管上切缘未见癌累及。术后切开右肝标本,见右肝管瘤栓充填(图 3),取出瘤栓送病检,见胆管内息肉样肿块向管腔突出,基底宽,周围胆管壁凹凸不平,考虑胆管癌。术后病理示(图 4、图 5): 1、“胆管内肿物”为肝细胞肝癌伴坏死,肿瘤侵犯胆管壁;周边肝组织呈慢性肝炎肝硬化改变(G2S2)。2、(右肝胆管瘤栓)肝细胞肝癌。免疫组化(图 6、图 7): AFP(灶+), CD34(血管+), Hepatocyte(+), GS-6(部分+), CK8(+), Glypican-3(+), CK(+), Ki-67(约 20%+)。术后患者肝功能等逐步恢复正常,好转出院。

2024 年 4 月, 术后 1 个月患者返院复查, 行经导管肝动脉化疗栓塞术 + 化疗药物灌注 + 肝局部灌注 + 肝动脉造影(TACE), 术中将导管超选入肝动脉, 于动脉导管内缓慢注入顺铂 60 mg、氟尿嘧啶 1.0 g 行化疗, 于表柔比星 30 mg 加碘化油 2 ml 栓塞。术中造影显示未见肿瘤显影。

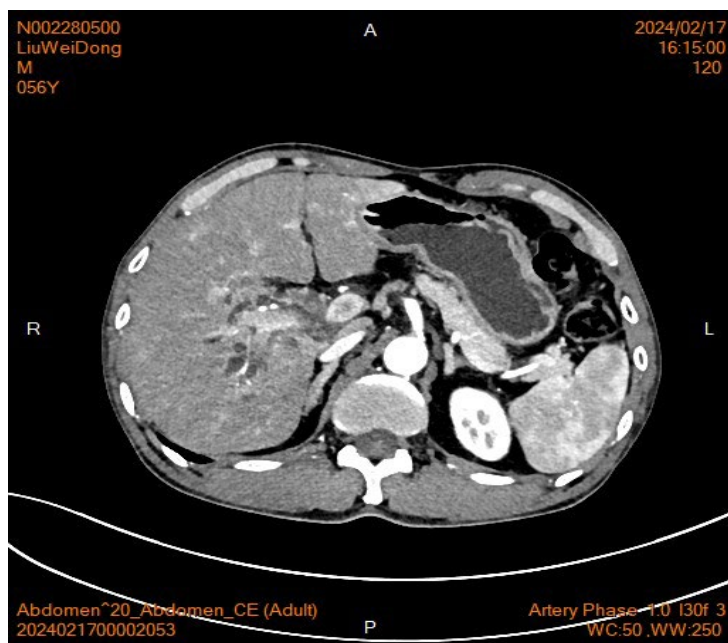


Figure 1. CT demonstrates: abnormal cast-like density in the hepatic hilar region and bile ducts of the right hepatic lobe

图 1. CT 示: 肝门区及肝右叶胆管内铸形异常密度

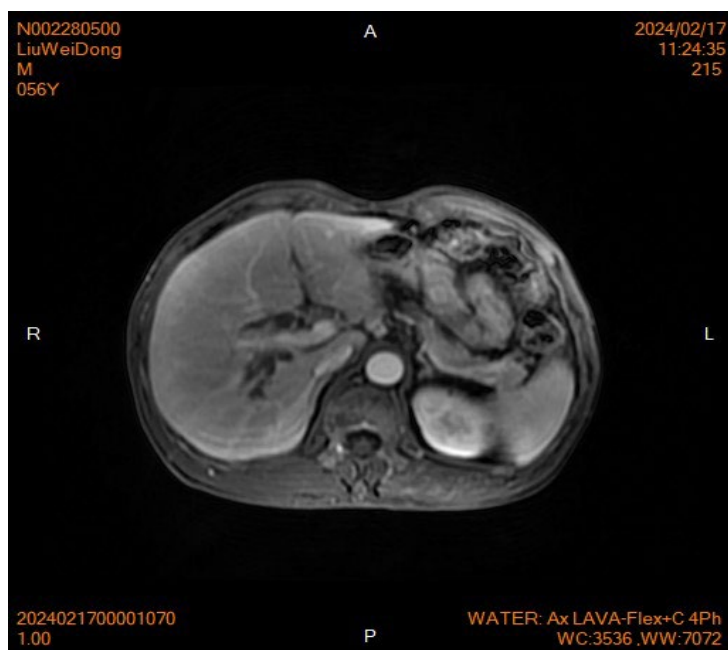


Figure 2. MRI demonstrates: thickening of the bile duct wall and luminal stenosis in the hepatic hilar region

图 2. MRI 示: 肝门区胆管壁增厚、管腔狭窄

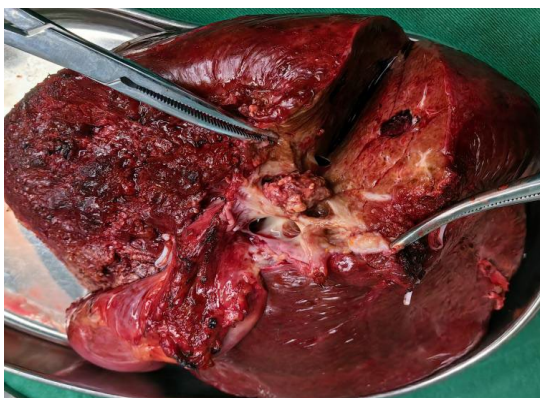


Figure 3. Tumor thrombus filling the right hepatic duct
图 3. 右肝管瘤栓充填

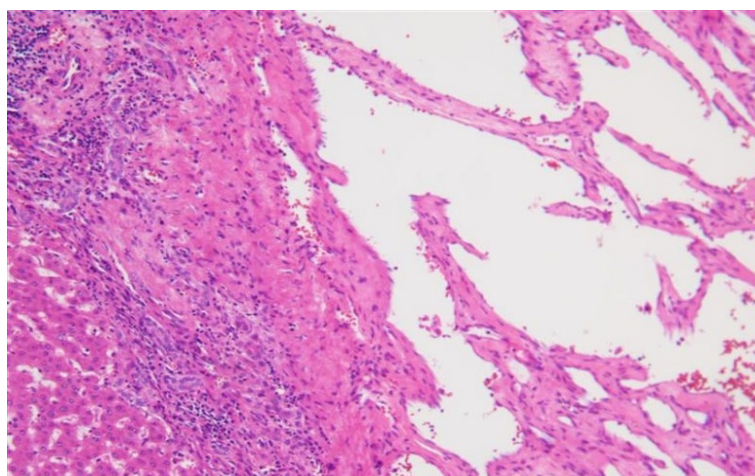


Figure 4. Pathology: The “intrahepatic bile duct mass” is hepatocellular carcinoma with necrosis, and the tumor invades the bile duct wall

图 4. 病理: “胆管内肿物”考虑为肝细胞肝癌伴坏死, 肿瘤侵犯胆管壁

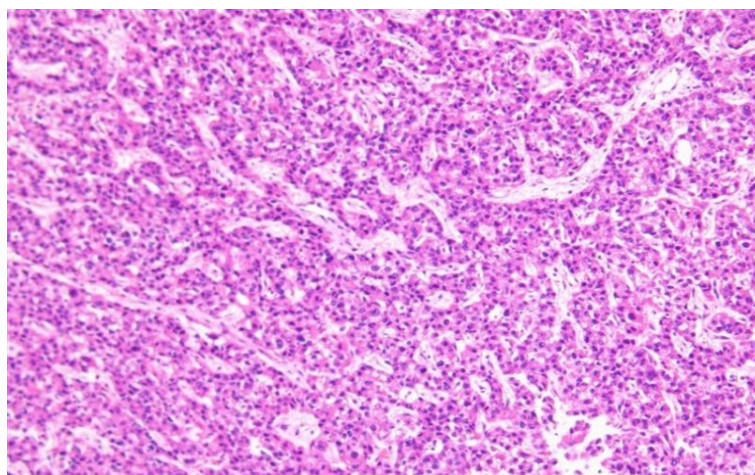
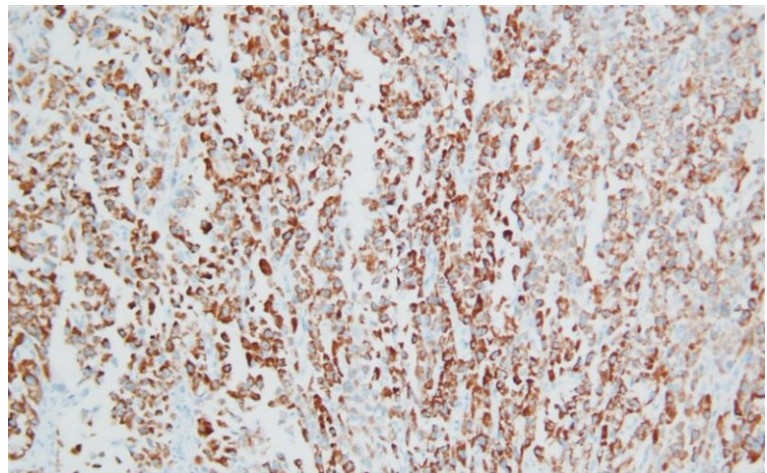


Figure 5. Pathology: The “intrahepatic bile duct mass” is hepatocellular carcinoma with necrosis, and the tumor invades the bile duct wall

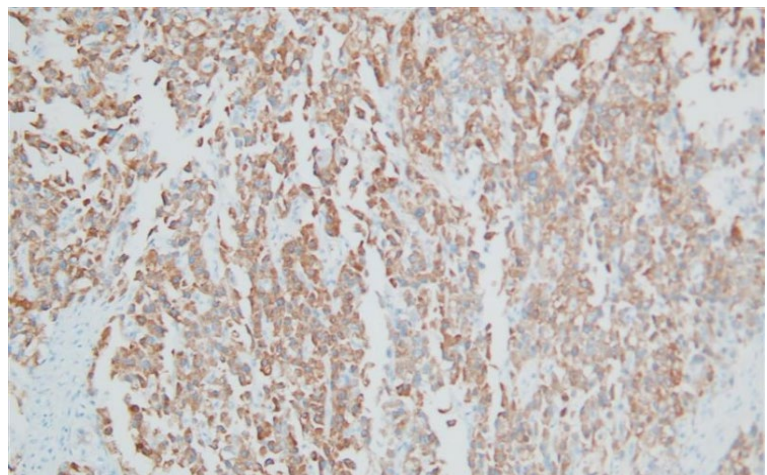
图 5. 病理: “胆管内肿物”考虑为肝细胞肝癌伴坏死, 肿瘤侵犯胆管壁



Hepatocyte

Figure 6. Immunohistochemistry: Hepatocyte(+), the “intrahepatic bile duct mass” is hepatocellular carcinoma with necrosis

图 6. 免疫组化: Hepatocyte(+) “胆管内肿物” 考虑为肝细胞肝癌伴坏死



Glypican-3

Figure 7. Immunohistochemistry: Glypican-3(+), the “intrahepatic bile duct mass” is hepatocellular carcinoma with necrosis

图 7. 免疫组化: Glypican-3(+) “胆管内肿物” 考虑为肝细胞肝癌伴坏死

3. 讨论

胆管异位的肝细胞癌(EHCC)极其罕见, 全球报道不足 50 例[1] [5] [6]。本例的特殊性在于肿瘤原发于肝内胆管腔内而非肝实质, 且具备典型肝细胞癌的病理特征(HepPar-1+, Glypican-3+), 却呈现胆管癌的临床表现(梗阻性黄疸、CA19-9 显著升高)。这种矛盾现象可能源于肿瘤的解剖位置: 胆管内的异位肝组织因胆汁引流障碍导致慢性炎症, 促进癌变; 而肿瘤生长又直接阻塞胆管引发黄疸。我们对本次案例的误诊进行深度分析, 总结了以下原因: (1) 影像学误导性: CT/MRI 显示胆管内占位伴上游胆管扩张(“软藤征”), 易误诊为胆管型 IPMN 或 ICC。但本例动脉期强化程度高于典型 ICC (后者多呈边缘轻度强化), 近年研究表明, EHCC 在增强 CT/MRI 中可呈现“动脉期不均匀强化 + 延迟期部分退出”的混合模式, 与胆管癌的渐进性强化不同[7], 此点未获充分关注。(2) 生物标志物陷阱: CA19-9 升高(330 U/ml)符合胆

道梗阻特征, 但 AFP 正常(4.86 ng/ml)已提示 HCC 可能性低; 若联合检测 AFP-L3/PIVKA-II 或可提高鉴别准确性[1], 联合检测血清异常凝血酶原(PIVKA-II), 可提高 AFP 阴性 HCC 的检出率[8]。

通过对现有文献的梳理, 我们对 EHCC 的发病机制形成了新的认识。单细胞测序研究揭示: 胆管周围腺体中的肝样干细胞可能分化为肝细胞表型并在慢性炎症下癌变[9]。本例的 HBV 感染及肝硬化微环境可能加速了这一过程, 而 Glypican-3 阳性进一步支持肝细胞起源[10]。在治疗策略方面, 我们提出以下优化方向: 1. 术前诊断: 对于影像学提示“胆管癌”而 AFP 正常的病例, 建议完善多模态影像学评估并结合血清学标志物联合分析; 2. 手术方案: 根治性切除(如本例右半肝切除 + 胆管重建), 术中冰冻病理示胆管切缘阴性, 遂保留左肝管行 Roux-en-Y 吻合, 避免全肝切除, 但需注意 EHCC 易沿胆管播散(瘤栓), 术中胆道镜评估切缘至关重要; 3. 术后辅助治疗: 对于预防性 TACE 的应用价值目前存在争议, 由于 EHCC 的血供常不及典型 HCC 丰富, 其疗效尚未得到充分证据支持[5]。

未来随着精准医学技术的发展, 胆道镜下靶向活检联合快速现场免疫组化(ROSE-IHC)等技术可能为 EHCC 的术前确诊提供新的途径, 其中 HepPar-1/Arginase-1 的双阳性表达模式显示出潜在诊断价值[9]。此外, 针对 EHCC 特有的分子标志物探索及靶向治疗策略也值得进一步研究。

本研究为 EHCC 的临床管理提供以下启示: 1. 诊断警示: 面对“胆道梗阻 + CA19-9 升高 + 肝内占位”的临床征象, 应警惕 EHCC 可能, 避免盲目诊断为胆管癌, 需排查 EHCC; 2. 病理确诊: 胆管内肿瘤建议进行免疫组化三联检测(HepPar-1/Arginase-1/CK19), 以明确细胞起源及鉴别诊断。3. 预后特征: 胆管内 EHCC 具有较强的侵袭性, 易发生脉管侵犯(如本例瘤栓形成), 其预后可能差于肝实质来源的 HCC [6]。

声明

该病例报道已获得病人的知情同意。

参考文献

- [1] He, M., Wang, H., Ji, F., et al. (2016) Diagnosis and Therapy of Ectopic Hepatocellular Carcinoma Growing in the Intrahepatic Bile Duct. *Journal of the College of Physicians and Surgeons Pakistan*, **26**, 130-132.
- [2] Martinez, C.A.R., de Resende, H.C., Rodrigues, M.R., Sato, D.T., Brunialti, C.V. and Palma, R.T. (2013) Gallbladder-associated Ectopic Liver: A Rare Finding during a Laparoscopic Cholecystectomy. *International Journal of Surgery Case Reports*, **4**, 312-315. <https://doi.org/10.1016/j.ijscr.2013.01.006>
- [3] Karaca, G., Özden, H., Pehlivanlı, F., et al. (2016) Ectopic Liver Tissue on the Gallbladder: An Incidental Mass in Laparoscopy. *Archives of Iranian Medicine*, **19**, 78-79.
- [4] Braun, M., Kuneman, W., Teresiński, L., Kupnicki, P., Jesionek-Kupnicka, D. and Kordek, R. (2017) Pure Hepatocellular Carcinoma Originates from an Ectopic Liver Nodule Located in the Pancreas. *Współczesna Onkologia*, **21**, 311-314. <https://doi.org/10.5114/wo.2017.72403>
- [5] Schmelzle, M., Matthaei, H., Lehwald, N., et al. (2009) Extrahepatic Intraductal Ectopic Hepatocellular Carcinoma: Bile duct Filling Defect. *Hepatobiliary & Pancreatic Diseases International*, **8**, 650-652.
- [6] Tsushimi, T., Enoki, T., Harada, E., Orita, M., Noshima, S., Masuda, M., et al. (2005) Ectopic Hepatocellular Carcinoma Arising in the Bile Duct. *Journal of Hepato-Biliary-Pancreatic Surgery*, **12**, 266-268. <https://doi.org/10.1007/s00534-004-0963-y>
- [7] Chen, X., Wang, Y., Li, J., et al. (2021) Imaging Features of Ectopic Hepatocellular Carcinoma: Differentiating from Intrahepatic Cholangiocarcinoma and Metastatic Tumors. *European Radiology*, **31**, 5890-5901.
- [8] Zhou, J., Wang, L., Zhang, Y., et al. (2022) Combined Measurement of AFP, AFP-L3, and PIVKA-II Enhances Early Detection of HBV-Related Hepatocellular Carcinoma: A Multicenter Prospective Study. *Journal of Hepatology*, **76**, 825-835.
- [9] Fan, Z., Li, Y., Chen, X., et al. (2021) Single-Cell Transcriptomics Reveals Hepatic Stem Cell Niche Driving Cholangiocarcinoma Development. *Gut*, **70**, 357-366.

- [10] Sasaki, K., Matsuda, M., Ohkura, Y., *et al.* (2023) Glypican-3 as a Specific Immunohistochemical Marker for Hepatocellular Differentiation: Validation in 1,574 Human Tumors. *Histopathology*, **82**, 166-178.
- [11] Liu, Y., Zhang, H., Chen, Q., *et al.* (2023) Rapid On-Site Evaluation with Immunohistochemistry during Cholangioscopy (ROSE-IHC) for Real-Time Diagnosis of Biliary Tumors: A Feasibility Study. *Endoscopy*, **55**, E1028-E1030.