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CHALLENGING MANAGEMENT OF PURE SQUAMOUS CELL CARCINOMA OF GALLBLADDER WITH LIVER METASTASIS- A CASE REPORT

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Introduction

Squamous cell carcinoma of the gallbladder (SCC of GB) is the rarest type of gallbladder carcinoma, accounting for about 3% of cases. The survival rates for pure SCC of GB are significantly lower compared to adenocarcinoma of the gallbladder. Most cases present with advanced symptoms and are associated with cholelithiasis or cholecystitis. Due to its rarity, there is no specific treatment established for SCC of GB, and data on the success rates of radiotherapy and chemotherapy are limited.

Case History

A 69-year-old man with a history of cholelithiasis initially presented with acute severe gallstone pancreatitis. Imaging revealed a suspicious lesion in the distal common bile duct (CBD), but a CT scan showed no evidence of cholangiocarcinoma. Despite elevated bilirubin and alkaline phosphatase (ALP) levels, the patient was not keen on surgery at that time.

Six months later, he returned with intermittent fever and epigastric pain, and was found to have jaundice and right hypochondriac tenderness. Blood tests indicated leukocytosis, significantly elevated ALP, and slightly high total bilirubin. An ultrasound showed multiple liver nodules without prominent duct dilatation, and persistent fever with leukocytosis led to an open cholecystectomy.

Intraoperatively, multiple liver nodules, adhesions, and a perforated gallbladder embedded in the liver were observed. Pathology confirmed a moderately differentiated squamous cell carcinoma of the gallbladder with metastasis to the omentum and liver. The patient was discharged after two weeks and later opted for palliative care due to the extensive spread of cancer.

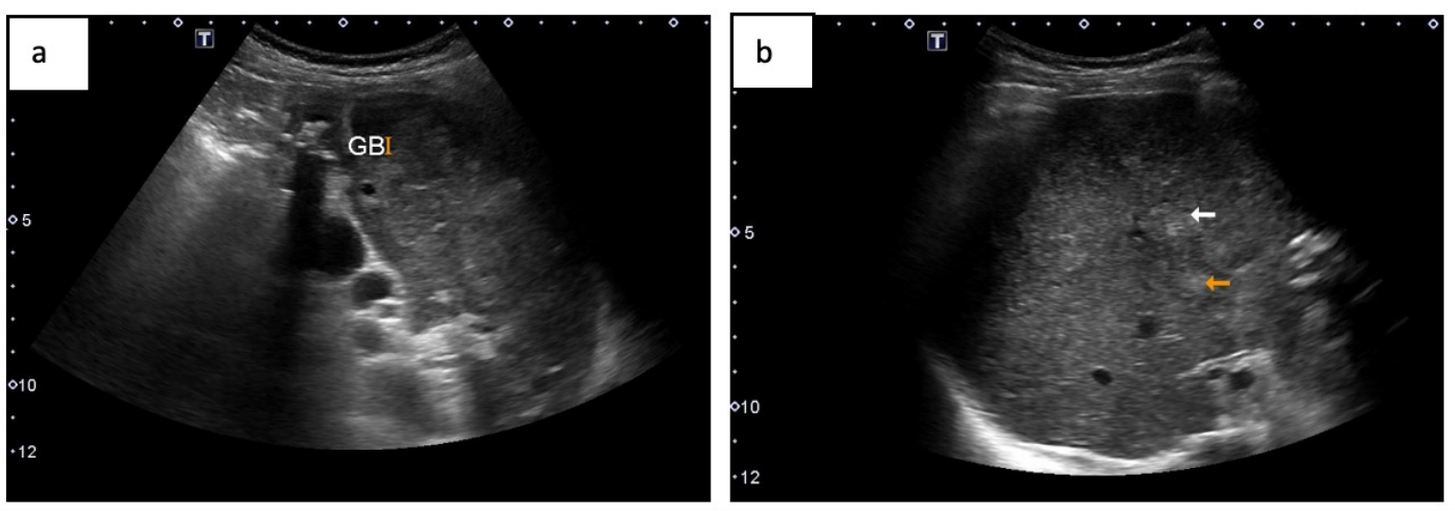

Figure 1(a) : Preoperative ultrasound HBS showed distended gallbladder wall with multiple stone within. No pericholecystic collection or thickened wall seen and (b) liver with coarse architecture with scattered multiple nodules. No intrahepatic duct dilatation seen.

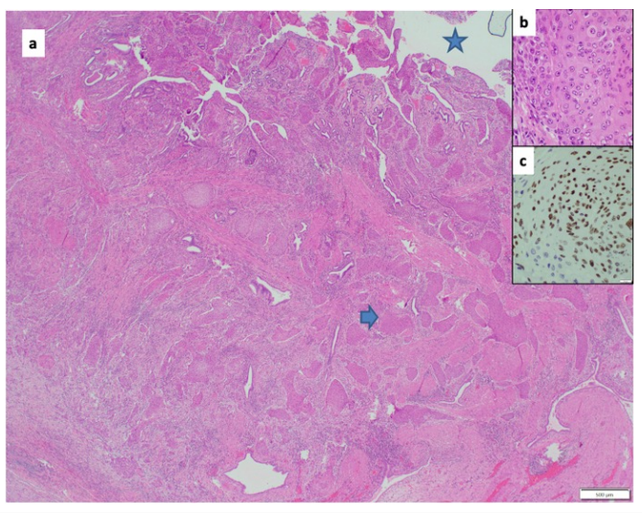

Figure 2(a) Squamous cell carcinoma involving the gallbladder wall splaying muscularis mucosae (arrow) (H&E x20). (b) Islands of atypical squamous cells (H&E x400). (c) P40 positivity.

Discussion

- Gallbladder carcinoma (GBC) is a common biliary tract malignancy, accounting for 80%-95% of cases (1). Subtypes include primary gallbladder squamous cell carcinoma (SCC), adenosquamous/squamous, papillary, and adenocarcinoma. SCC is very rare, making up 2-3% of all GBC cases (2).
- Diagnosing SCC of the gallbladder is challenging due to limited resources specific to this subtype (3). SCC of the gallbladder is often diagnosed at a late stage with hepatobiliary symptoms. Most SCC cases show no significant elevation of tumor markers (4).
- Major risk factors for SCC of the gallbladder include advanced age, high cholesterol levels, and recurrent cholecystitis. Additional risk factors for GBC include long-standing gallstones, pancreatobiliary reflux, pancreatobiliary malfunction, and gallbladder adenoma (5).
- Surgery is the primary treatment for SCC of the gallbladder. SCC patients often receive multimodal therapy, including chemotherapy or chemoradiotherapy. R0 resection (complete tumor removal) is associated with increased survival rates. SCC requires more extensive surgery compared to adenocarcinoma, with higher rates of positive margins despite surgery. Common surgeries include simple cholecystectomy, radical cholecystectomy, and debulking surgery (1,6).
- A case of pure SCC with liver mass showed complete recovery post-surgery and was referred for chemotherapy and radiotherapy. Tumors in SCC are usually larger at diagnosis, with higher rates of liver invasion and higher TNM staging. Another case with liver and transverse colon invasion was treated conservatively due to unresectable tumor and poor health status (7,8).
- Limited treatment resources due to the rarity of pure SCC of the gallbladder. Chemoradiotherapy is more effective than radiotherapy alone for node-positive and R1 resection cases, though overall benefit of adjuvant therapy is unclear (9).

Conclusion

Pure SCC of GB is an uncommon and has poor outcome compared to other type gallbladder carcinoma. Early diagnosis and complete resection of the tumor provide good outcome and overall survival. Current treatment had limited resource to prove good outcome in advance diagnosis. More studies are needed to understand the disease better and determine the best treatment..

References

1. Ayabe RI, Wach MM, Ruff SM, Diggs LP, Martin SP, Wiemken T, Hinyard L, Davis JL, Luu C, Hernandez JM. Gallbladder squamous cell carcinoma: An analysis of 1084 cases from the National Cancer Database. J Surg Oncol. 2020 Jun 8:10.1002/jso.26066.
2. Samuel S, Mukherjee S, Ammannagari N, Pokuri VK, Kuvshinoff B, Groman A, LeVea CM, Iyer R. Clinicopathological characteristics and outcomes of rare histologic subtypes of gallbladder cancer over two decades: A population-based study. PLoS One. 2018 Jun 11;13(6):e0198809.
3. Zhu C, Sun L, Wei Y, Xu D, Zhou Y. Characteristics and survival prognosis of patients with pure squamous cell carcinoma of the gallbladder. ANZ J Surg. 2021 Mar;91(3):E91-E97.
4. Leigh N, Solomon D, Pletcher E, Sullivan B, Sarpel U, Labow DM, Magge DR, Golas BJ. Adeno-squamous and squamous cell carcinoma of the gallbladder: The importance of histology in surgical management. Am J Surg. 2020 Nov;220(5):1242-1248.
5. Andrea C, Francesco C. Squamous-cell and non-squamous-cell carcinomas of the gallbladder have different risk factors. Lancet Oncol. 2003 Jul;4(7):393-4.
6. Perisetti A, Raghavapuram S, Tharian B, Warraich I, Hardwicke F, Rahman R, Onkendi E. Pure Squamous Cell Carcinoma of the Gallbladder Masquerading as a Hepatic Mass. Cureus. 2018 Jan 1;10(1):e2011.
7. Willson CM, Barsoum N, Khan MTA, Rushton J. Primary Squamous Cell Carcinoma of Gallbladder With Hepatic Invasion. Cureus. 2023 Mar 5;15(3):e35795.
8. Mghirbi F, Ayadi M, Karray W, Yahyaoui Y, Meddeb K, Mokrani A, Raies H, Chraeit N, Mezlini A. Squamous cell carcinoma of the gallbladder. Transl Gastroenterol Hepatol. 2016 Oct 20;1:78.
9. Horgan AM, Amir E, Walter T, Knox JJ. Adjuvant therapy in the treatment of biliary tract cancer: a systematic review and meta-analysis. J Clin Oncol. 2012 Jun 1;30(16):1934-40.