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A Diagnostic Dilemma: Gall Bladder Cancer Masquerading as Chronic Cholecystitis with Obstructive Jaundice

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ABSTRACT:

Background: Gallbladder carcinoma is the most common malignancy of the biliary tract and often presents late due to nonspecific clinical features. In some cases, it may mimic benign or more common causes of obstructive jaundice, posing a diagnostic challenge.

Case Presentation: We report the case of a 55-year-old female who presented with acute abdominal pain, vomiting, and jaundice. Laboratory investigations revealed conjugated hyperbilirubinemia. USG abdomen and pelvis suggested chronic cholecystitis with GB sludge. Contrast-enhanced CT suggested biliary obstruction with features suspicious for distal common bile duct pathology and possible neoplastic etiology; however, no definitive gallbladder mass was identified. Despite detailed imaging and evaluation, the diagnosis remained inconclusive preoperatively. The patient underwent surgical intervention and histopathological examination of the resected specimen unexpectedly revealed gallbladder carcinoma.

Conclusion: This case highlights the diagnostic difficulty of gallbladder cancer when it has non-specific presentation without clear radiological evidence of a primary lesion. A high index of suspicion and thorough histopathological evaluation are crucial for timely diagnosis. Gallbladder carcinoma should be considered in cases where sometimes radiological investigations are not conclusive, especially in the background of chronic inflammatory conditions.

INTRODUCTION

Gall Bladder Cancer is the most common biliary tree malignancy and the fifth most common malignancy of gastro intestinal system [1]. Its presentation is non-specific. Sometimes it is an unexpected finding found during laparotomy or detected incidentally on histologic examination after cholecystectomy [2]. Obstructive jaundice can be due to intrahepatic or extrahepatic reasons. The reasons for extrahepatic cholestasis may be obstruction of the common bile duct by stones, strictures, inflammatory edema, biliary atresia, bile duct injury, tumours, pancreatic tuberculosis and roundworms [3]. This is a rare case of obstructive jaundice with distal CBD stricture, where imaging and invasive modalities, could not identify the gall bladder cancer, which was incidentally identified postoperatively through the histopathology report.

CASE REPORT

A 55 years old woman presented with complaints of pain in abdomen, sudden in onset, associated with vomiting. The patient had jaundice on presentation. Labs done were suggestive of raised conjugated bilirubin levels, raised ALT, AST and ALP. On examination, there was tenderness present in right hypochondrium and epigastrium.

USG Abdomen and pelvis was done suggestive of chronic cholecystitis.

CECT Abdomen and pelvis done was suggestive of

Few small hypodense area of enhancing focal lesion is noted in segment IV and segment I.

Intrahepatic biliary radicles appear dilated centrally and peripherally on both side.

The lesion shows irregular margin and biliary thickening is seen around distal CBD seen passing through the pancreas with enhancing periductal thickening measuring 8 mm causing upstream dilatation of biliary radicle system and few subcentimetric sized lymph node in prehepatic, paraaortic, aortocaval and periportal region. Left intrahepatic portion of portal vein is not visualized s/o portal vein thrombosis and shows irregular margin of extrahepatic portion of portal vein and seen involving the CBD with poorly maintained margin s/o Neoplastic in etiology.

CBD dilated measures 14 mm.

Findings suggestive of Malignant stricture due to distal cholangiocarcinoma of distal CBD with left portal vein thrombosis.

MRCP done was suggestive of

- Simple hepatic cyst in right and left lobe of liver.
- Dilated common bile duct with abrupt narrowing at the distal part likely? due to malignant stricture.
- T2 hyperintense signal is noted in the left lobe of liver? likely due to left sided portal vein thrombosis.
- Mild periportal oedematous changes along with the oedema is noted in the intrahepatic biliary radicles at the central part and along the left lobe of the liver.
- Mild central and left lobar IHBRD.
- Cholelithiasis with gallbladder wall thickening.

She underwent ERCP with EUS with CBD stenting.

ERCP was suggestive of

1) Suspected Ampullary Growth - Multiple biopsies & Brush cytology taken
2) Distal CBD stricture likely malignant - Brush cytology taken
3) EPT done
4) ERCP -CBD stenting done.

CBD brush cytology showed no evidence of malignancy. Ampullary biopsy showed no evidence of malignancy.

Her CA19.9 levels were elevated. IGG type 4 levels were done and were within normal limits. The patient symptomatically improved and was discharged. Again after 2 months, she presented with pain in abdomen. CECT abdomen and pelvis was done s/o Dilated CBD with CBD stent seen in situ with pneumobilia - likely postprocedural. Few air foci are noted within the gallbladder-? Postprocedural changes /cholecystitis. 10 x 9 mm sized cyst noted in the right lobe of liver.

Her CA 19.9 levels were repeated and again they were elevated.

Before presenting again with pain in abdomen, she took a gastroenterologist opinion and underwent ERCP with EUS with CBD stent placement again. It was suggestive of Distal CBD stricture? etiology. EUS was suggestive of Mildly dilated CBD with Gall Bladder sludge and? chronic cholecystitis. CBD diameter was 7 mm. Brush cytology of distal CBD stricture showed no evidence of malignant cells.

Neither of these imaging and invasive modalities were suggestive of malignancy of CBD or gall bladder. But CA19.9 levels were persistently elevated. Patient was explained the options of either undergoing Whipple's Surgery or laparoscopic cholecystectomy followed by removal of stent after 2 weeks and regular follow-up later meticulously every month. The patient choose the later and underwent Laparoscopic cholecystectomy. Intraoperatively there was enlarged Lymph node of Lund. Histopathology report of the resected gall bladder came out to be Moderately differentiated adenocarcinoma of gall bladder.

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Patient was advised to undergo PET CT scan which showed –

- No loco-regional recurrence//primary residual neoplastic disease
- No metabolically active loco-regional or distant adenopathy
- No metabolically active lesion noted in liver, bilateral adrenals or visualized skeletal system
- No discrete suspicious nodules are seen in bilateral lung fields
- No evidence of active disease noted in rest of the scan.

Tumour board meeting was held and patient was started on a course of Tablet Capecitabine 500 mg BD and asked to review and follow up triweekly. Patient has complaints of hair loss after starting on tablet Capecitabine.

FIGURES

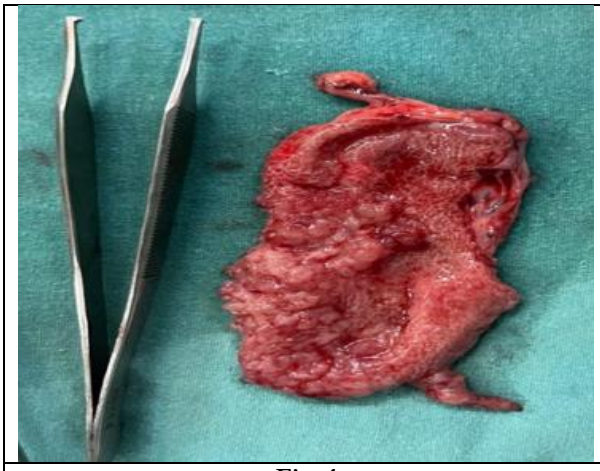


Fig: 1

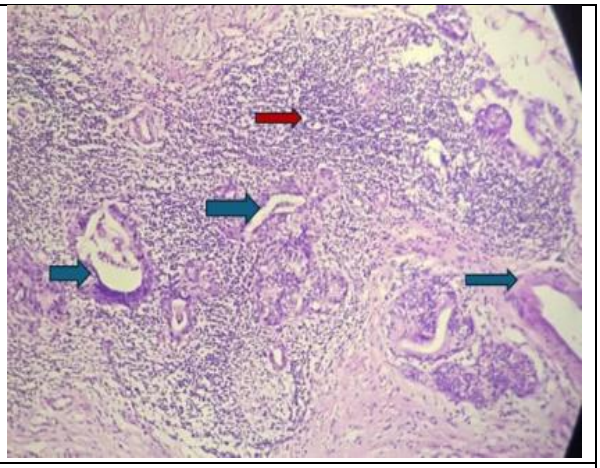


Fig: 2

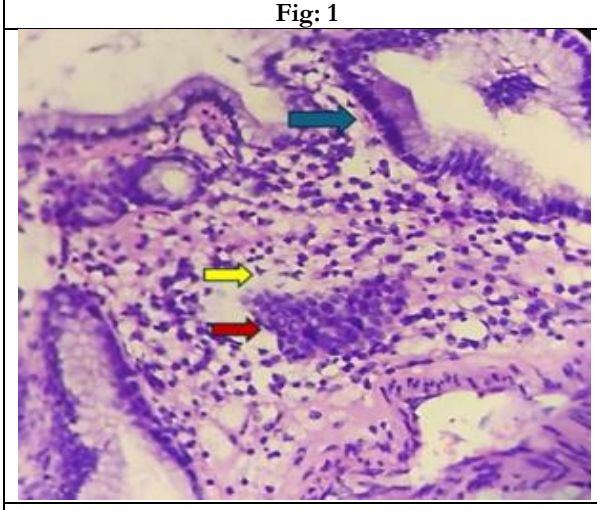


Fig: 3

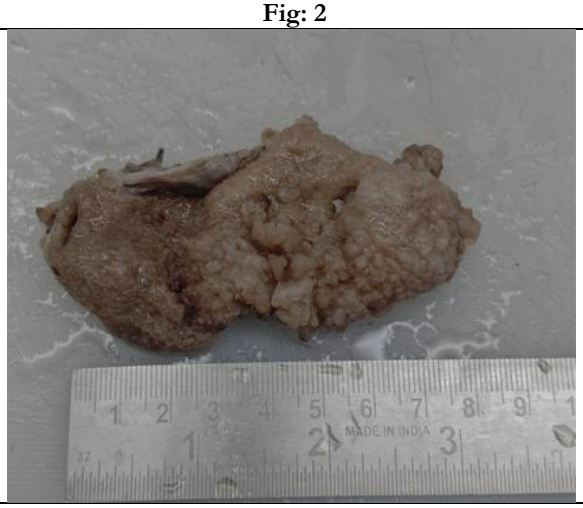


Fig: 4

Fig 1: Irregular growth seen in the lumen of excised gall bladder

Fig 2: Section showing irregular infiltrating glandular structures of varying size and shape (blue arrow) with dense fibrous stroma surrounding the glands and associated inflammatory infiltrate (lymphocytes) in the stroma (red arrow) (100x)

Fig 3: Section showing irregular infiltrating glandular structures lined by atypical columnar cells (blue arrow) with nuclear pleomorphism, hyperchromasia (red arrow), along with atypical mitotic figures (yellow arrow) (400X)

Fig 4: Gross specimen showing irregular, thickened gallbladder wall with a grey-white, nodular to papillary exophytic mass lesion projecting into the lumen. and areas of surface nodularity.

DISCUSSION

Gallbladder cancer is more common in females. It is usually diagnosed late, because of its nonspecific presentation. It usually presents with abdominal lump, weight loss, anorexia and jaundice, any of these can be seen in cholecystitis and other benign gallbladder conditions as well as in other abdominal malignancies [2]. So patients are diagnosed in advanced stages, which makes the prognosis poor. It is important to diagnose at an early stage, before the invasion occurs [2]. Most gallbladder cancers show deep local invasion and cannot be completely resected [4]. Ultrasound, computed tomography (CT), and magnetic resonance imaging (MRI) help to diagnose the disease, in the earlier stages and there by direct the modality of treatment. GBC usually develops in patients with chronic gallbladder diseases, gall stones and/or environmental exposure to certain toxins, heavy metals, and other dietary variables [5]. Porcelain gallbladder, Mirizzi's syndrome, pancreatic bile reflux have also shown to have predisposition to gall bladder cancer [5]. A lot of times, gall bladder cancers are identified incidentally in histopathology after the patient underwent cholecystectomy for some other reason. It can arise within pre-existing chronic cholecystitis, thereby postponing the recognition of malignancy [1]. Adenocarcinoma is the most common subtype of gallbladder cancers. Other subtypes are papillary, mucinous, squamous, and adenosquamous which are rarer. Screening of gallbladder carcinoma remains a challenge. Laboratory tests are unreliable in diagnosing gallbladder carcinoma pre-operatively as they have low sensitivity. Carcinoembryonic antigen (CEA), and carbohydrate antigen 19-9 (CA19-9) can be elevated inpatients with gallbladder carcinoma, but both tests are unreliable. Sensitivity of CEA is about 50% and CA 19-9 is 80% [4]. In our patient, CA19.9 levels were persistently elevated.

Surgical resection is the primary treatment modality for GBC, particularly in early stage disease. Cholecystectomy, often accompanied by liver resection, is the standard approach of treatment when the cancer has invaded the adjacent tissues. Surgery is very effective in early stages and offers a potential for long term survival. But it has limited efficacy in patients with advanced stage disease and integration of radiotherapy and chemotherapy is very important in such patients. Gemcitabine/Capecitabine based chemotherapy is advised in patients with advanced disease [6].

CONCLUSION

Gall bladder cancer is mostly diagnosed in late stages, due to its nonspecific presentation. By the time it is diagnosed, the patient is in an advanced stage, leading to bad prognosis. Imaging modalities help to diagnose the disease earlier, but are not confirmatory always. CA 19.9 was persistently elevated in this patient, raising the suspicion of malignancy. This case is rare, because imaging modalities could not identify the gall bladder and the suspicion of malignancy was always leaning towards the distal CBD lesion. After the cholecystectomy, the pathology of gall bladder cancer was an incidental finding and patient had no evidence of local/distant invasion of the lesion on PETCT scan, done postoperatively. The clinical suspicion of proceeding with surgical intervention allowed the early diagnosis of gall bladder malignancy, rather than the patient being left alone, with stent insitu. The patient being diagnosed in early stages, had no evidence of any malignancy due to spread in postoperative PETCT scan and chemotherapy was started, leading to better prognosis.

REFERENCES

[1] Bains, L.; Maranna, H.; Lal, P.; Kori, R.; Kaur, D.; Mallya, V.; Singh, V. The Giant Resectable Carcinoma of Gall Bladder—a Case Report. *BMC Surg.*2021, 21 (1), 133. https://doi.org/10.1186/s12893-021-01117-2.

[2] A Andrén-Sandberg A. Diagnosis and Management of Gallbladder Cancer. N Am J Med Sci. 2012 Jul;4(7):293-9. Doi: 10.4103/1947-2714.98586. PMID: 22866265; PMCID: PMC3409652.

[3] Liu JJ, Sun YM, Xu Y, Mei HW, Guo W, Li ZL. Pathophysiological Consequences and Treatment Strategy of Obstructive Jaundice. World J Gastrointest Surg. 2023 Jul 27;15(7):1262-1276. Doi: 10.4240/Wjgs.V15.I7.1262. PMID: 37555128; PMCID: PMC10405123.

[4] Syarifuddin, Erwin, Teddy Agung Saputra, and Gabriele Jessica Kembuan. 2021. "Papillary Adenocarcinoma of the Gallbladder: A Case Report". Asian Journal of Case Reports in Surgery 4 (1):100-106.

[5] Halaseh SA, Halaseh S, Shakman R. A Review of the Etiology and Epidemiology of Gallbladder Cancer: What You Need to Know. Cureus. 2022 Aug 22;14(8):E28260. Doi: 10.7759/Cureus.28260. PMID: 36158346; PMCID: PMC9491243.

[6] Xu S, Xu M. Advances in Diagnosis and Treatment of Gallbladder Cancer: Current Status and Future Directions. World J Gastrointest Oncol 2025; 17(5): 104957 [PMID: 40487958 DOI: 10.4251/Wjgo.V17.I5.104957].