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Case Report

Delayed Diagnosis and Self-Medication: A Devastating Consequence in Cholangiocarcinoma: A Case Report

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ABSTRACT

Cholangiocarcinoma is a rare and aggressive malignancy originating from the bile duct epithelium. We present a case of a 33-year-old female patient diagnosed with metastatic cholangiocarcinoma, who initially presented with nonspecific symptoms such as abdominal pain, weight loss, and dyspepsia. Imaging studies revealed a large mixed solid-cystic lesion in the pelvis, multiple lung nodules, and a heterogeneous mass lesion replacing the gallbladder. Despite undergoing chemotherapy, the patient's condition deteriorated, and she developed complications such as pulmonary thromboembolism and hepatic encephalopathy. This case highlights the aggressive nature of cholangiocarcinoma and the challenges in managing its complications. This case study highlights a classic example of delayed diagnosis, which significantly exacerbated the patient's condition. The patient experienced symptoms for approximately one year, including abdominal pain and back pain, but neglected to seek medical attention, instead relying on self-medication and Ayurvedic remedies. This delay in diagnosis allowed the cholangiocarcinoma to progress to an advanced stage, resulting in metastasis and severe complications, including pulmonary thromboembolism and hepatic encephalopathy. The delayed diagnosis undoubtedly contributed to the poor prognosis and highlights the importance of timely medical evaluation for persistent symptoms.

Keywords: Cholangiocarcinoma, Metastasis, Chemotherapy, Pulmonary thromboembolism, Hepatic encephalopathy.

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INTRODUCTION

Cholangiocarcinoma is a rare and aggressive form of cancer that originates in the bile duct and is classified as a heterogeneous adenocarcinoma.[1] Theodor Billroth first described multiple primary cholangiocarcinomas in 1899.[2] Common symptoms of cholangiocarcinoma include jaundice (yellowing of the skin), back pain, abdominal pain, indigestion, loss of appetite, weight loss, vomiting, fever, and pale-colored stools. Unfortunately, chemotherapy is often ineffective due to delayed diagnosis and asymptomatic conditions.[3] In this case, the patient experienced abdominal and back pain for approximately one year but neglected her symptoms and opted for self-medication instead. Globally, the prevalence rate of cholangiocarcinoma is less than 6 cases per 100,000 people, and the annual incidence rate ranges from 0.3 to 2 cases per 100,000 people. The most significant risk factors for Cholangiocarcinoma (CCA) include a genetic predisposition to primary sclerosing cholangitis, as well as various environmental and health-related factors, such as hepatitis B and C, bile duct cysts, gallstones, obesity, inflammatory bowel disease, tobacco smoking, exposure to toxins, and liver fluke infection.[4,5] Cholangiocarcinoma can be anatomically classified into three types based on location: intrahepatic, perihilar, and distal, with intrahepatic cholangiocarcinoma accounting for approximately 10% of all cholangiocarcinoma cases.[6]

CASE DESCRIPTION

A 33-year-old female patient was admitted to a private hospital on November 22, 2024, with a 6-month history of dyspepsia, weight loss, right hypochondrial pain, and back pain. She had been experiencing back pain and abdominal pain for one year before her admission, which she had managed with Over-The-Counter (OTC) medications and Ayurvedic medication. Upon admission, the doctor recommended an MRI of the pelvis, which revealed a large, mixed solid-cystic lesion (7.8 x 8.6 x 7.9 cm) in the midline pelvis (Figure 1). The lesion had extended characteristics, and multiple lung nodules were also detected. Additionally, a heterogeneous lesion had completely replaced the gallbladder (Figure 2). A subsequent CT abdominal scan confirmed that the gallbladder was entirely replaced by a heterogeneous mass lesion that showed post-contrast enhancement. Several heterogeneously enhancing lymph nodes were noted in the porta hepatis and near

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the superior mesenteric artery, causing compression on nearby blood vessels. The right ovary was not visualized separately, and the right adnexa showed a peripherally enhancing lesion with associated paraaortic nodes (Figure 3). This lesion compressed the right ureter, leading to grade II hydroureteronephrosis (Figure 4). The CT scan also revealed multiple cavitating and non-cavitating lesions in both lungs (Figure 6), a moderately distended stomach with increased rugal folds (likely gastritis), and bilateral sacroiliitis with sclerosis of the iliac and sacral aspects of the sacroiliac joints. Due to these findings, the doctor recommended that the patient be transferred to a Regional Cancer Centre in Trivandrum, where she was admitted on November 26, 2024. The oncologist suggested a biopsy of the right adrenal mass, which revealed adenocarcinoma with metastasis. The patient developed dyspnea, and subsequent tests, including D-dimer and CT Pulmonary Angiography (CTPA), Revealed Pulmonary Thromboembolism (PTE). She was commenced on anticoagulation therapy and other symptomatic measures. In addition to PTE, the patient also developed symptoms of hepatic encephalopathy, including ascites and elevated bilirubin levels, as well as abnormal liver function tests, such as elevated Aspartate Aminotransferase (AST) and Alanine Aminotransferase (ALT)

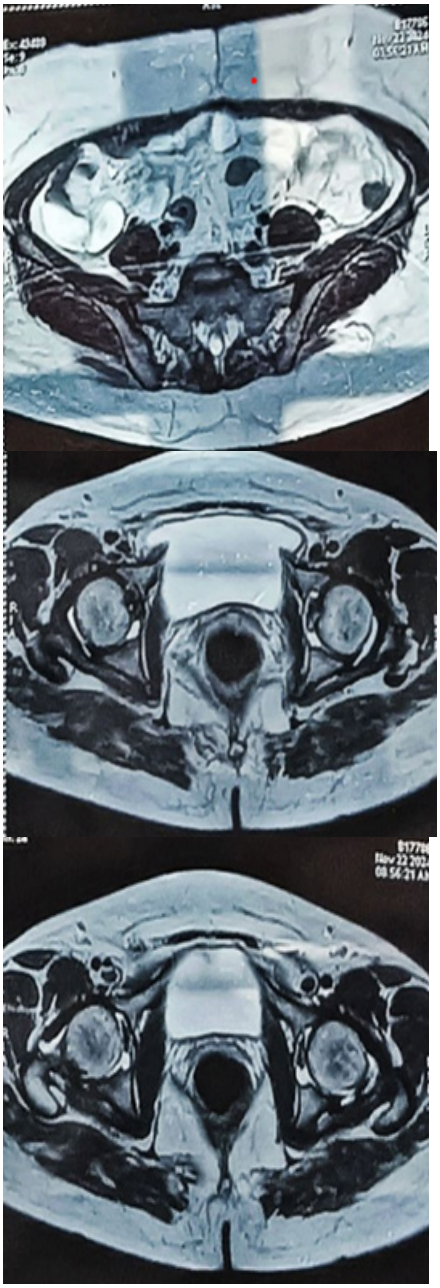

Figure 1: A pelvic MRI revealed a large, complex pelvic mass (7.8 x 8.6 x 7.9 cm) in the midline, characterized by both solid and cystic components.

levels and reduced albumin levels. Her White Blood Cell (WBC) count was also elevated at 19,800 cells per cubic millimeter. The patient was treated with hepatoprotective medications, including injection meropenem, tablet apixaban, tablet udiliv, tablet N-Acetylcysteine (NAC), syrup lactulose, and tablet rifaximin. After explaining the high risks associated with chemotherapy, the patient was started on chemotherapy on January 24, 2025, with a regimen consisting of INJ. Gemcitabine, INJ. Cisplatin, and INJ. Durvalumab. Cycle 1 (C1) Gem + Cis (D1 on 24.1.25; D8 on 1.2.25), Inj. Gemcitabine 800mg D1 on 24.01.25; D8 on 1.2.25 along with Inj. Cisplatin 40 mg D1 on 24.1.25; D8 on 1.2.25, Inj. Durvalumab 1500 mg D1 on 24.1.25. A CT thorax scan was also performed, which revealed multiple discrete soft tissue nodules in both lungs, the largest measuring 10 mm in the right lower lobe (Figure 5). A peripheral irregular nodular lesion measuring 1.7 cm was seen in the left upper lobe. Atelectatic changes were seen in the right lobe, and partial thrombosis involving bilateral lobar and segmental pulmonary arterial branches was noted (Figure 6). A retrograde reflex of contrast into the Inferior Vena Cava (IVC) and hepatic vein was seen, suggesting right heart strain. Moderate pericardial effusion was also seen. Upper abdomen sections showed peripheral wedge-shaped splenic and bilateral renal hypodensities, likely suggesting infarcts.

The patient completed two cycles of chemotherapy but showed no clinical improvement. On February 10, 2025, she was readmitted to the Intensive Care Unit (ICU) at General Hospital with symptoms including decreased responsiveness, decreased food intake, abdominal distention, breathing difficulties, abdominal pain, decreased urine output, and reduced sleep over the past two weeks. Upon admission, her blood pressure was 150/80 mmHg, oxygen saturation was 80%, and blood glucose was 290 mg/dL. Her laboratory results revealed a total leukocyte count of 21,000 cells per cubic millimeter, total bilirubin of 4.8 mg/dL, SGOT of 46 mg/dL, SGPT of 29 mg/dL, and Alkaline Phosphatase (ALP) of 603 mg/dL. Physical examination revealed basal crepitus in the lungs, ascites, and bilateral plantar flexion weakness. The patient was diagnosed with metastatic cholangiocarcinoma, hepatic encephalopathy, and pulmonary thromboembolism. Despite completing two cycles of chemotherapy, the patient showed no clinical improvement, prompting the doctor to suggest a revised treatment plan. The new plan included administering Injection Pantoprazole 40 mg intravenously twice a day to reduce stomach acid and prevent bleeding. Additionally, Injection Ondansetron 4 mg was administered intravenously twice a day to manage nausea and vomiting associated with chemotherapy. To address the loss of albumin, Injection of Human Albumin 100 mL was administered intravenously twice a day. To support liver function, Tablet UDCA (Ursodeoxycholic acid) 300 mg was prescribed three times a day. Injection Thiamine 100 mg was administered intravenously once a day to prevent Wernicke's encephalopathy, a complication of thiamine deficiency. Furthermore, Injection Vitamin K was administered intravenously once a day to promote blood clotting. Tablet Rifaximine 550 mg was prescribed twice a day to manage hepatic encephalopathy. Syrup Lactulose 15 mL was administered three times a day to reduce ammonia levels in the blood. Injection Ceftriaxone 1 g was administered intravenously twice a day to treat any underlying infections. To prevent stomach ulcers, Injection Omeprazole 20 mg was administered intravenously twice a day. Tablet NAC (N-Acetylcysteine) 600 mg

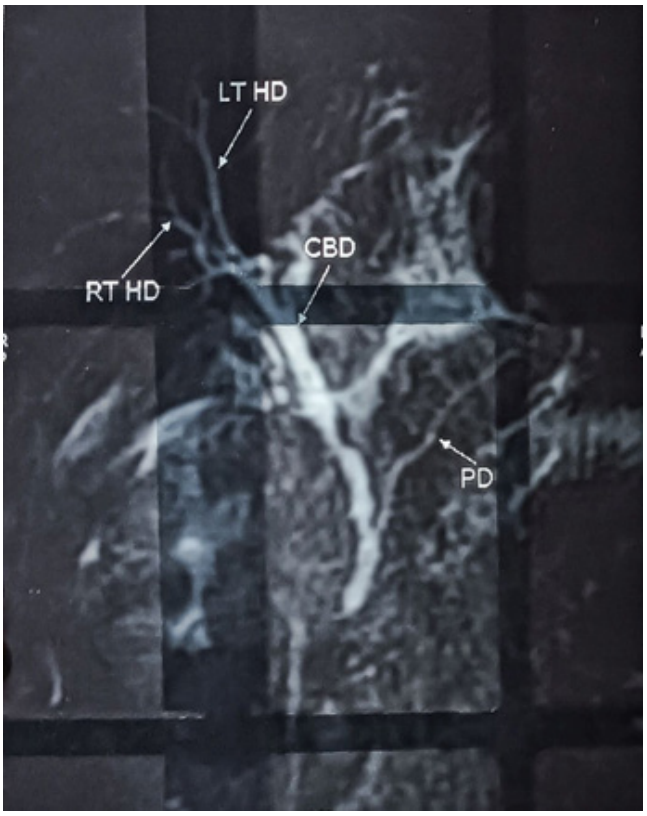

Figure 2: (LT HD; Left Hepatic Duct, RT HD; Right Hepatic Duct, CBD; Common Bile Duct, PD; Pancreatic duct).

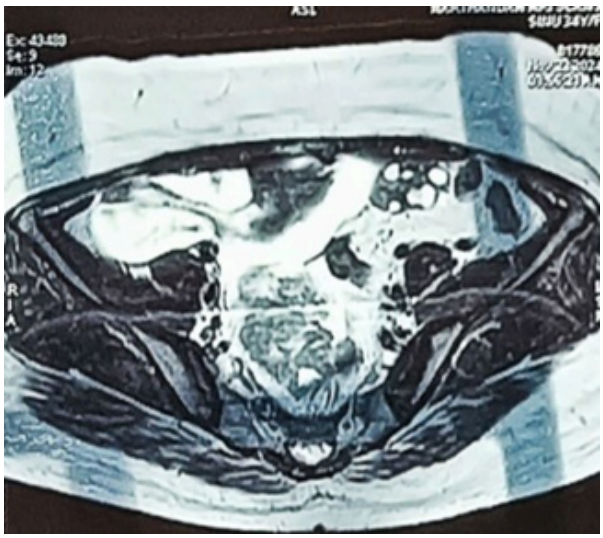

Figure 3: Imaging showed the right ovary was obscured, with a peripherally enhancing lesion in the right adnexal region and associated paraaortic lymphadenopathy.

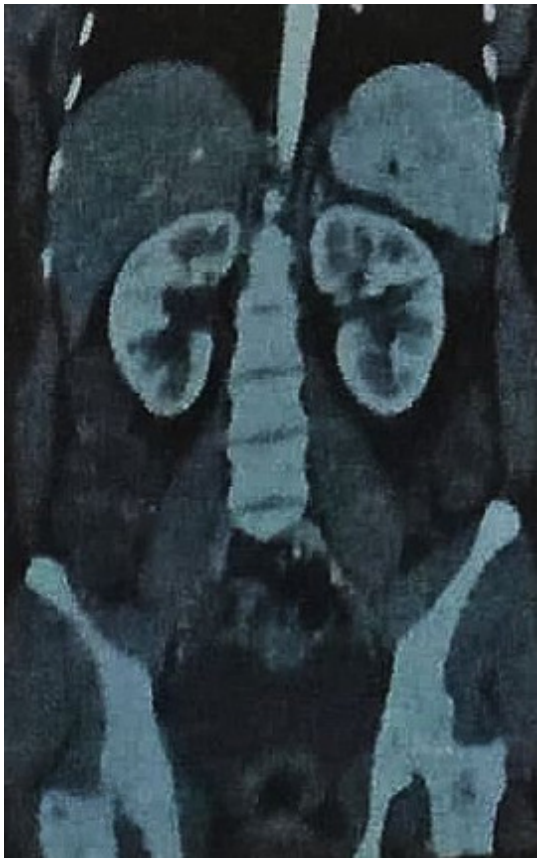

Figure 4: Right ureteral compression by the lesion led to grade II hydronephrosis and hydroureter.

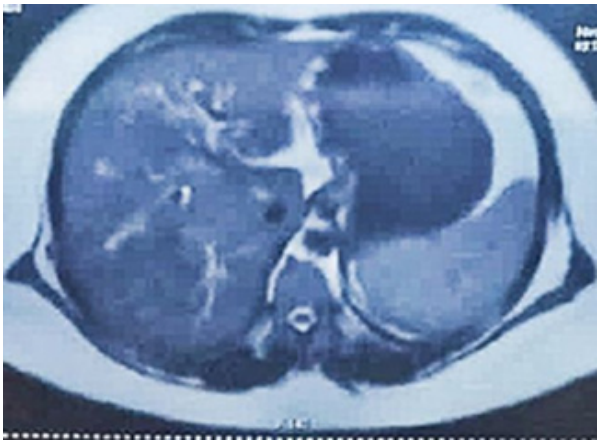

Figure 5: CT thorax scan revealed multiple discrete pulmonary nodules bilaterally, with the largest nodule (10 mm) located in the right lower lobe.

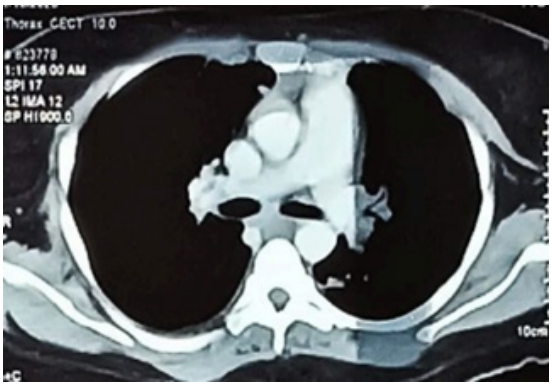

Figure 6: Atelectatic changes were observed in the right lung lobe, accompanied by partial thrombosis in bilateral lobar and segmental pulmonary arteries.

was prescribed twice a day to support respiratory health. Finally, Tablet Apixaban 5 mg was prescribed twice a day to prevent blood clots. This comprehensive treatment plan aimed to address the patient's various symptoms and complications, improve her quality of life, and prevent further deterioration.

DISCUSSION

Cholangiocarcinoma is considered one of the most aggressive forms of cancer. Diagnosing this disease typically involves clinical and laboratory evaluations. These evaluations include tests for biliary obstruction, abnormal liver function, and elevated tumor markers.[7] Several factors contribute to the risk of developing cholangiocarcinoma, including genetic, congenital, environmental, and parasitic factors. Notably, Familial Adenomatous Polyposis (FAP) increases the risk of distal cholangiocarcinoma due to a mutation in the Adenomatous Polyposis Coli (APC) gene.[8] A patient experienced symptoms of cholangiocarcinoma, such as abdominal pain and back pain, for approximately one year but did not seek medical attention. Consequently, the patient's condition worsened, and the oncologist recommended two cycles of chemotherapy. Unfortunately, the treatment provided no relief, and the patient's condition did not improve. Delayed diagnosis due to self-management allowed the cancer to progress undetected. The cancer had already established itself in the liver, making treatment more challenging. The patient eventually developed hepatic encephalopathy, further complicating the treatment. Early diagnosis is crucial for all cancers, especially cholangiocarcinoma. Imaging tests, such as Computed Tomography (CT) and Magnetic Resonance Imaging (MRI), play a crucial role in diagnosing cholangiocarcinoma. Cholangiocarcinoma characteristically shows progressive uptake of contrast agents during imaging studies' arterial and venous phases, particularly for lesions larger than 20 mm Blood tests typically reveal elevated levels of cholestatic parameters, indicating a blockage or reduction in bile flow. Imaging tests, such as cross-sectional studies, often show the extrahepatic bile duct thickening. They may also show narrowing or stricture of the extrahepatic bile duct. Additionally, imaging tests may reveal enlargement or dilatation of the bile duct upstream of the blockage.[9] This case report aims to raise awareness about the importance of early detection of cholangiocarcinoma. It also highlights the dangers of self-medication when symptoms arise.

CONCLUSION

This case report highlights the aggressive nature of cholangiocarcinoma and the challenges associated with its diagnosis and management. The patient's delayed presentation and lack of response to chemotherapy underscore the need for early detection and more effective treatment strategies. Despite the comprehensive treatment plan, the patient's condition continued to deteriorate, emphasizing the importance of continued research into better diagnostic and therapeutic approaches for this rare and aggressive malignancy. This case also underscores the importance of a multidisciplinary approach in managing complex cases of cholangiocarcinoma.

ACKNOWLEDGEMENT

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CONFLICT OF INTEREST

Written informed consent was obtained from the patient for the publication of this case report. The patient's identity has been protected, and all identifying information has been removed to maintain confidentiality. There are no conflicts of interest to declare.

ABBREVIATIONS

CCA: Cholangiocarcinoma; **UDCA:** Ursodeoxycholic Acid; **NAC:** N- Acetylcysteine; **FAP:** Familial Adenomatous Polyposis; **APC:** Adenomatous Polyposis Coli; **MRI:** Magnetic resonance imaging.

PATIENT CONSENT

Informed consent was obtained directly from the patient for publication of this case report.

REFERENCES

1. Quincy A Hathaway, Dhairya A Lakhani, Aneri B Balar, *et al.* Distal cholangiocarcinoma: case report and brief review of the literature. 2022; 18(2): 423-9. doi: 10.1016/j.radcr.2022.10.072
2. Yang, Yan-Hui MD, PhD; Deng, Qing MD; Yang, Tian-Bao, *et al.* A case report of cholangiocarcinoma combined with moderately differentiated gastric adenocarcinoma *Medicine,* 2019; 98(30):pe16332. | *DOI:* 10.1097
3. Yulia V Kovshirina, Olga S Fedorova, Sergey V Vtorushin, Anna E Kovshirina, *et al.* Case Report: Two Cases of Cholangiocarcinoma in Patients with *Opisthorchis felineus* Infection in Western Siberia, Russian Federation Am J Trop Med Hyg. 2018; 100(3): 599-603. doi: 10.4269/ajtmh.18-06524.
4. S. Buettner, J.L. van Vugt, IJzermans JN, Groot Koerkamp B. Intrahepatic cholangiocarcinoma: current perspectives Onco. Targets. Ther. 2017; 10: 1131-42, 10.2147/OTT.S93629
5. Palmer WC, Patel T. Are common factors involved in the pathogenesis of primary liver cancers? A meta-analysis of risk factors for intrahepatic cholangiocarcinoma. J Hepatol, 2012; 57: 69-76.
6. Kipp BR, Voss JS, Kerr SE, *et al.* Isocitrate dehydrogenase 1 and 2 mutations in cholangiocarcinoma. Hum Pathol. 2012; 43: 1552-8. doi: 10.1016/j.humpath.2011.12.007.
7. Van Beers BE. Diagnosis of cholangiocarcinoma. HPB (Oxford) 2008; 10(2): 87-93. doi: 10.1080/13651820801992716.
8. Miyazaki M, Takada T, Miyakawa S, Tsukada K, Nagino M, Kondo S, *et al.* Risk factors for biliary tract and ampullary carcinomas and prophylactic surgery for these factors. J Hepatobiliary Pancreat Surg. 2008; 15(1): 15-24. doi: 10.1007/s00534-007-1276-8.
9. Sakoda LC, *et al.* Prostaglandinendoperoxide synthase 2 (PTGS2) gene polymorphisms and risk of biliary tract cancer and gallstones: a population-based study in Shanghai, China. Carcinogenesis, 2006; 27: 1251-6.

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