An Uncommon Cause of obstructive Jaundice: Icteric Type Hepatoma

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INTRODUCTION

- Hepatocellular carcinoma (HCC) presenting with obstructive jaundice as the initial symptom is rare, with incidence ranging from 1-12% of HCC cases.
- We report a case of a 73-year-old male patient with cirrhosis secondary to hepatitis C who presented with obstructive jaundice as an initial symptom of HCC, causing infiltrative common hepatic duct thrombosis.

CASE DISCUSSION

- A 73-year-old male with a past medical history of hepatitis C (HCV) related cirrhosis presented to the hospital with a one-week history of worsening jaundice.
- His HCV was treated with Sofosbuvir, Simeprevir, and ribavirin and has achieved SVR. Admission labs were notable for ALP 442 unit/L, ALT 127 unit/L, AST 146 unit/L, and total bilirubin of 10.2 mg/dL. A viral hepatitis serologies were negative.
- AFP was normal.
- CT scan of the abdomen was obtained, which demonstrated some intrahepatic ductal dilation and a 3cm mass-like lesion in the inferior liver. A subsequent MRI abdomen with contrast showed a 3cm mass causing biliary obstruction with extension into hepatic segment VIII concerning a hilar cholangiocarcinoma (Fig A).
- ERCP was done for further evaluation. On cholangiogram, there was a significant stricture of the common hepatic duct approximately 1 cm above the cystic duct with intrahepatic ductal dilation (Fig B).
- Biliary brushing was obtained from the stricture, followed by dilatation and plastic stent placement.
- Post-procedure, his bilirubin improved as expected, and he was subsequently discharged. His biliary brushing returned as benign ductal epithelial.

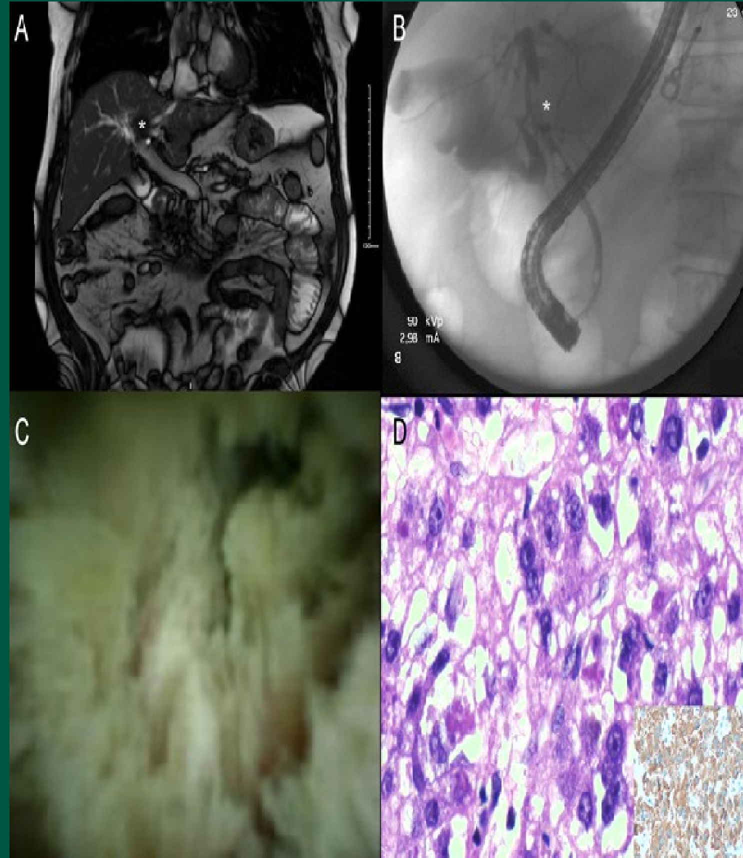

Fig A: MRI image with mass (marked with *)
Fig B: Cholangiogram with common hepatic duct stricture (marked with *)
Fig C: Cholangioscopy view of the abnormal appearing tissue in the stricture
Figure D: H&E x400: The carcinoma cells are large, polygonal with abundant cytoplasm and prominent central nulceoli. Some of the cells contain Mallory-Denk bodies (*) characteristic of steatohepatitic type hepatocellular carcinoma. Inset shows strong and diffuse immunoreactivity for Hep Par 1 antibody, which is a hepatocellular marker.

RESULTS

- Given the high suspicion of malignancy, ERCP was repeated that showed continued high-grade common hepatic duct stricture. Cholangioscopy showed stricture area with abnormal villious, and ragged type appearance concerning for malignancy (Fig C).
- The biliary aspirate, repeat brushings, and direct tissue biopsies were obtained via cholangioscopy for histopathological analysis. A plastic stent was replaced to facilitate ongoing biliary drainage.
- The pathology result showed hepatocellular carcinoma as the underlying etiology of obstructive jaundice (Fig D).
- Given a history of cirrhosis and evidence of portal hypertension on imaging, the patient was deemed not a surgical candidate and was referred to an oncologist.
- He was started on systemic treatment with atezolizumab and bevacizumab in November 2021 with a favorable outcome.
- His most recent scan showed a stable treatment site without any recurrence or extrahepatic spread.
- His case was discussed in our multidisciplinary transplant evaluation committee and is currently listed for a liver transplant.

CONCLUSION

- Although rare, HCC should be considered a differential in cirrhotic patients with obstructive jaundice.
- In the absence of elevated AFP, the diagnosis will be challenging. ERCP with Bile duct brushing cytology is extremely valuable in diagnosing HCC with an invasion of the biliary tract.