Germ Cell Tumor of Testis with Metastasis to the Common Bile Duct: A Rare Case Report

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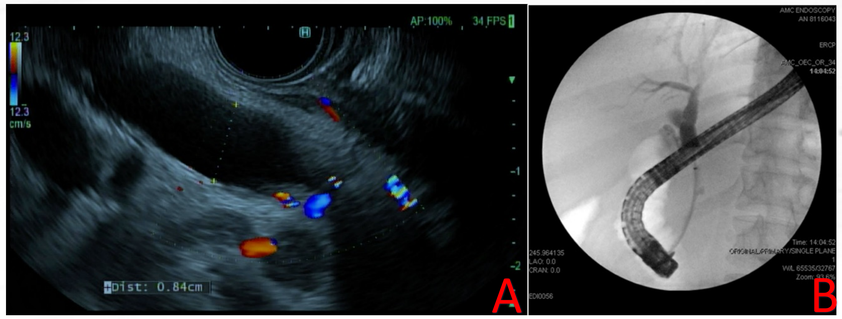
INTRODUCTION

Testicular cancer is an uncommon malignancy, but it is the most common cancer amongst males between ages 15 and 35. Germ cell tumors (GCTs) account for up to 95% of testicular cancers with retroperitoneal lymph nodes (LNs) as the most common site of metastasis. We present a case of GCT of the testis with metastasis to the retroperitoneal lymph nodes and common bile duct (CBD) causing biliary stricture and CBD dilation. To the best of our knowledge, this would be one of two case reports of biliary stricture caused by such metastatic cancer found in literature.

CASE REPORT

A 35-year-old male presented to the hospital for one month of right upper quadrant abdominal pain and unintentional weight loss. Outpatient imaging showed biliary duct dilation and several areas of lymphadenopathy. Endoscopic ultrasound (EUS) and endoscopic retrograde cholangiopancreatography (ERCP) were performed and showed abnormal porta hepatic lymphadenopathy as well as stricture at the middle and lower third of the CBD. Brushings from the CBD and fine needle aspirations from the porta hepatic LNs were taken for cytology and temporary stent was placed for symptomatic relief of biliary stricture. Metastatic cancer work-up with scrotal ultrasound showed a mass in the right testes. Serum quantitative hCG, AFP, and LD were elevated (1184.9, 39.6, and 1360 respectively). Patient was diagnosed with stage III non-seminomatous testicular cancer. Both CBD brushings and LN biopsy of the porta hepatis resulted as embryonal carcinoma GCT originating from the testis [Figure 1]. Patient's hospital course was complicated by continually rising bilirubin from the malignant intraabdominal lymphadenopathy causing extrinsic compression on the CBD resulting in multiple ERCP interventions. Moderate biliary stricture was found in the lower and middle third of the CBD which was stented. Bilirubin eventually normalized.



Figures A and B. (A) Dilation of the common hepatic duct due to stricture in the CBD due to lymph nodes visualized on EUS. **(B)** Irregular narrowing of the mid and distal bile duct with dilated common hepatic duct and intrahepatic branches on ERCP.

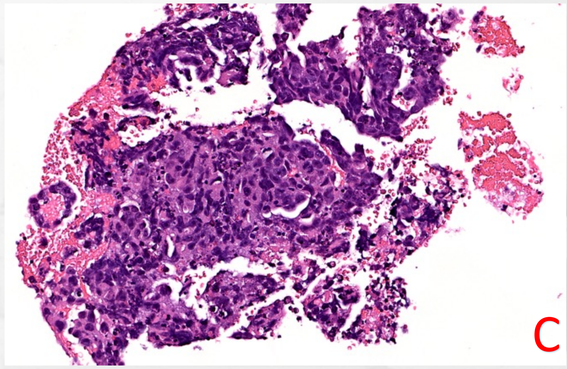


Figure C. 20x magnification of an H&E section of a lymph node biopsy at the porta hepatis showing pleomorphic tumor cells with prominent nucleoli and moderate amount of cytoplasm. Frequent mitosis is also identified. The tumor cells are positive for PLAP, CD30, SALL-4, AE1/AE3, OCT3/4 and Glypican 3 by immunohistochemistry (not shown). Morphology and immunoprofile is consistent with embryonal carcinoma.

DISCUSSION

This is a rare case of obstructive jaundice and biliary stricture in the setting of stage III non-seminomatous GCT that metastasized to the retroperitoneal LNs and CBD from the right testis. With EUS and ERCP, CBD stricture was found to be due to both extrinsic retroperitoneal LN enlargement and bile duct mucosa involvement. Metastatic GCT of the testis should be in the differential diagnosis amongst the young male patient population who present with obstructive jaundice and unintentional weight loss. EUS with ERCP are essential in diagnosis and treating obstructive jaundice due to metastatic GCT to CBD.