An Unusual Case of Jaundice

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INTRODUCTION

Peripheral T-Cell Non-Hodgkin's Lymphoma is the most common subtype of hematologic malignancies, but it rarely presents as jaundice.

CASE DESCRIPTION

A 75-year-old Caucasian male presented to the Emergency Department with confusion. Fifteen months earlier he was diagnosed with PTCL on axillary lymph node biopsy. Treatment with Cyclophosphamide, Etoposide, Prednisolone, and Vincristine (CEOP) was initiated with improvement in his symptoms, primarily itching. Eight months later, a relapse of PTCL was documented. Romidepsin was initiated three months prior to the current hospital admission, but was stopped within three weeks due to the relapse of PTCL, documented on bone marrow biopsy. His liver tests were normal two months prior to admission. On current admission, liver tests showed alkaline phosphatase of 400 IU, AST of 148 IU, ALT 142 IU, and total bilirubin of 3.4 mg/dL. A week later, bilirubin increased to 20.1 mg/dL being predominantly direct. CT scan and ultrasound of the abdomen, as well as nuclear medicine biliary scan, did not indicate extrahepatic biliary obstruction, but noted hepatomegaly (Image 1). A liver biopsy showed diffuse infiltration of the liver parenchyma with abnormal lymphocytes which were stained with CD3+ and CD5+ markers, but did not stain with CD7, documenting relapse of his PTCL in the liver. Diffuse intrahepatic cholestasis was also documented (Image 2). Two days after the liver biopsy, supportive treatment was withdrawn; and he expired.

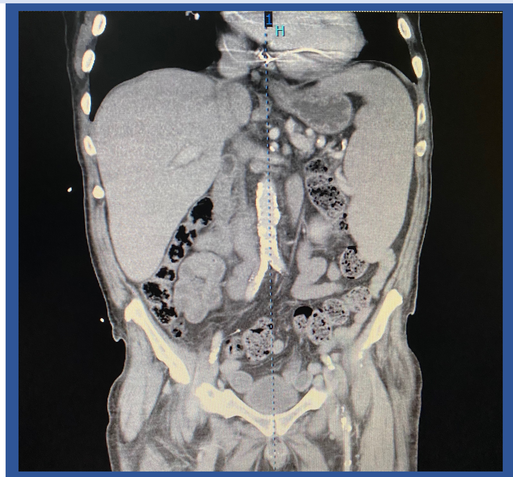
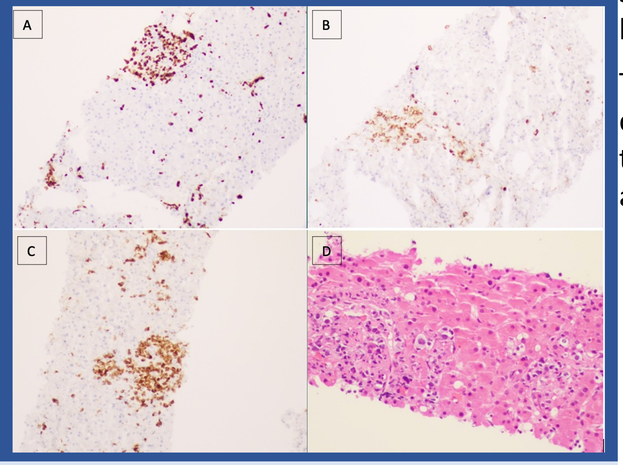


IMAGE 1: CT Abdomen/Pelvis

IMAGE 2: Random Liver Biopsy with Special Stain

Ki-67 (A)
CD30 (B)
CD3 (C)
H&E (D)



The bile duct can be compressed by lymphomatous mass' anywhere along its path; more commonly at the hepatic hilum and distal common bile duct.

Canalicular obstruction from Peripheral T-Cell Non-Hodgkin's Lymphoma is rare.

DISCUSSION

Canalicular obstruction from Peripheral T-Cell Non-Hodgkin's Lymphoma is rare and often a late manifestation of the disease. Histologic findings are specific and demonstrate bile in the hepatocytes and canaliculi spaces.

Itching increases suspicion of chronic cholestasis. While cholestyramine, ursodeoxycholic acid, and antihistamines can assist with symptom management, the ultimate treatment is addressing the underlying cause.

The absence of biliary dilation on abdominal imaging indicates intrahepatic cholestasis. The presence of splenomegaly increases suspicion of underlying hematologic malignancy.

This case highlights the importance of liver biopsy to document diagnosis and provide closure for the family. In this particular situation, the family elected to withdraw care after a liver biopsy confirmed relapse of the PTCL.

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