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A Case of T-cell Lymphoma Found in the Liver

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Introduction

Elevation in liver enzymes can be due to a variety of reasons such as toxins, drugs, autoimmune process, sepsis, malignant infiltration, alcoholic hepatitis, viral hepatitis, and other causes. In this case study, our patient presented with an obstructive pattern of liver test abnormalities. The patient demonstrated alkaline phosphatase levels >1000, with AST and ALT levels <200. His T-bilirubin initially was 1.5 and increased to 12.4 by the end of his hospital stay. Workup to exclude other causes of liver injury was performed and eventually a liver biopsy was needed to establish etiology. The biopsy revealed a malignant infiltration of likely Peripheral T-Cell Lymphoma.

Case Report

History of Present Illness:

- A 65 year old male from a long term care facility presented with decreased responsiveness, fever and hypotension. His PMH included cerebrovascular accident, cerebral aneurysm, hyperlipidemia, hypertension, hypothyroidism, seizure disorder, and malignant tumor of the larynx status post chronic tracheostomy.
- On physical exam his abdomen was soft, non-tender, with normal bowel sounds. His only complaint was increased respiratory secretions. He was found to have severe sepsis with septic shock secondary to pneumonia and bacteriuria.

Labs: Liver function tests revealed a total bilirubin of 2.2, direct bilirubin of 1.5, alkaline phosphatase 630, ALT 41, AST 66, and a GGTP of 616. An acute hepatitis panel was negative.

Imaging:

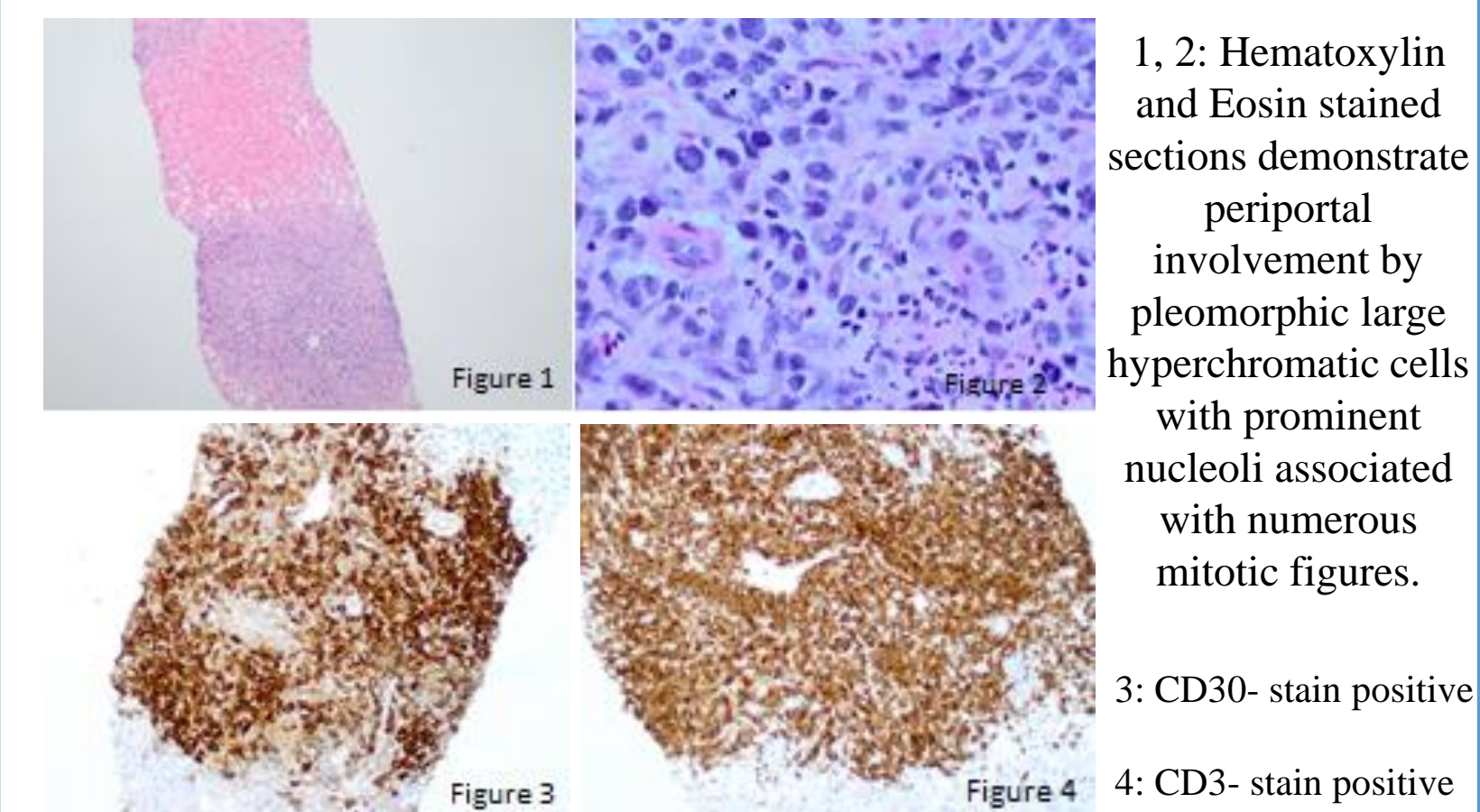
- A CT scan with oral and IV contrast of his chest, abdomen and pelvis demonstrated that the liver was within normal limits.
- An abdominal ultrasound showed that the liver was of normal size and echotexture, with no evidence of cholecystitis. An acute hepatitis panel was negative.
- A repeat abdominal ultrasound, 5 days later, demonstrated that the gallbladder wall was borderline diffusely thickened measuring 3.0 cm – an increase from the prior study where it measured 1.5 mm. An ERCP showed no evidence of choledocholithiasis or extrinsic compression of the common bile duct.
- A repeat CT scan revealed a hypodense lesion in the inferior right hepatic lobe density series and splenic enlargement with multiple masses.

Hospital Course:

- The patient was admitted to the hospital for septic shock, pneumonia, and elevated LFT's. He was treated with antibiotics. His liver function tests continued to trend upward in an obstructive pattern with no obvious etiology.

- Thus, a liver biopsy was performed.
- He eventually was found to have MRSA bacteremia and required vasopressor support in the ICU. He also progressed to hepatic failure and Comfort measures were initiated based on the wishes of the family. The patient then shortly expired.

Pathology



Discussion

- Peripheral T-Cell Lymphomas are a group of aggressive neoplasms which are grouped under Non-Hodgkin Lymphomas. The most common subtype is Peripheral T-Cell Lymphoma, Not otherwise specified, ^{1, 2}.
- Pathology from the patient's core liver biopsy revealed involvement of a CD 30 Peripheral T Cell Lymphoma (NOS), however, hepatic involvement by an ALK negative Anaplastic T Cell Lymphoma could not be excluded.

- This patient presented with extra-nodal involvement. His elevated LFT's and hyperbilirubinemia were likely secondary to this neoplastic process. The source of the patient's malignancy was unknown.
- T-Cell Lymphomas are fast growing and usually present as disseminated disease and are clinically aggressive with a dismal prognosis. ³
- Treatment options include Chemotherapy (Cyclophosphamide, Doxorubicin, Vincristine) and Prednisone. However, in recent years, there are a number of novel treatment agents which hold some promise for improving outcomes. ⁴

Conclusion

- This case report illustrates an uncommon cause of elevated liver function tests. It is important for clinicians to be mindful of rarer causes of hepatic dysfunction.
- It is imperative to identify T-Cell Lymphoma early and initiate aggressive measures immediately to prevent poor outcomes.
- Further research is needed to aid in classification, prognostication, and management of T-Cell Lymphomas.

References

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