ABNORMAL LIVER TESTS

- 58-year old woman

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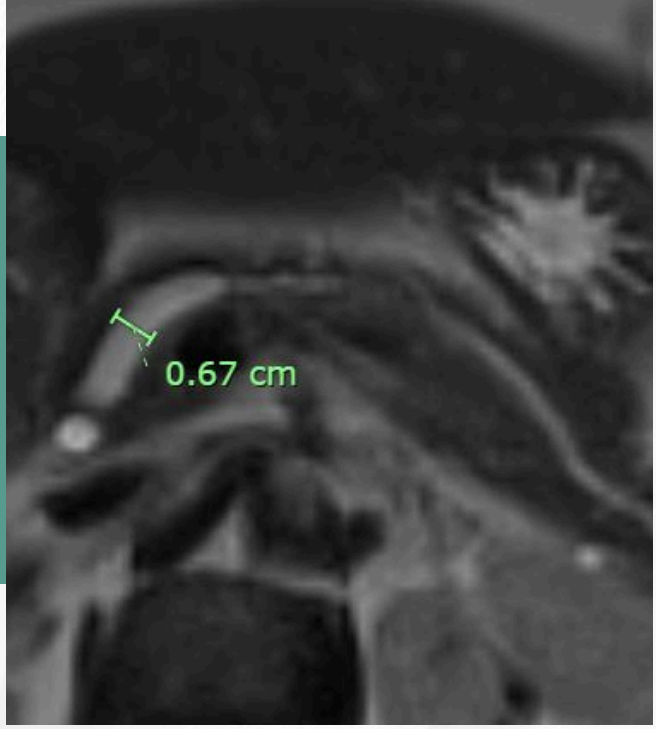


CASE STUDY

58 year-old woman with a history of anxiety, depression and hyperlipidemia; presented to the Emergency Room with fatigue, malaise, mild nausea and jaundice which began a few days prior to presentation. One week prior to these symptoms she reported dysuria and was prescribed Cefdinir by her primary medical doctor to treat a possible UTI.

Examination revealed scleral icterus; T 98.2F; HR 75; BP 110/68. Her abdomen exam was soft; NT; ND with no hepatomegaly. Initial lab evaluation showed total bilirubin 7 mg/dL; alkaline phosphatase 561 U/L; and ALT 396 U/L. Hepatitis serologies were all negative; mitochondrial antibody was negative.

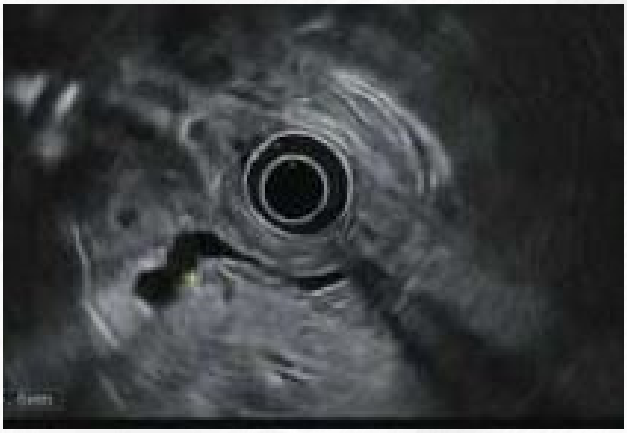
CT was obtained and showed normal-appearing liver; no intrahepatic or extrahepatic biliary dilation; and focal dilation of the pancreatic duct in the head of the pancreas. MRI was performed next and showed mild segmental dilation of the main pancreatic duct to 7 mm; normal liver and bile ducts. EUS was performed.

AT A GLANCE

CHALLENGES

- Jaundice
- Dilated pancreas duct
- Normal-looking liver

EUS/CT/MRI



EUS revealed focal main-PD dilation in the head of the pancreas, suggestive of focal MD-IPMN. The bile duct was unremarkable. Liver was visually normal.

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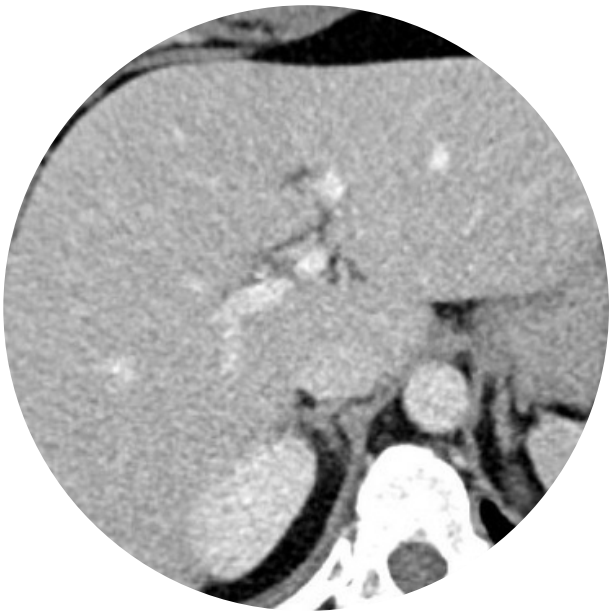
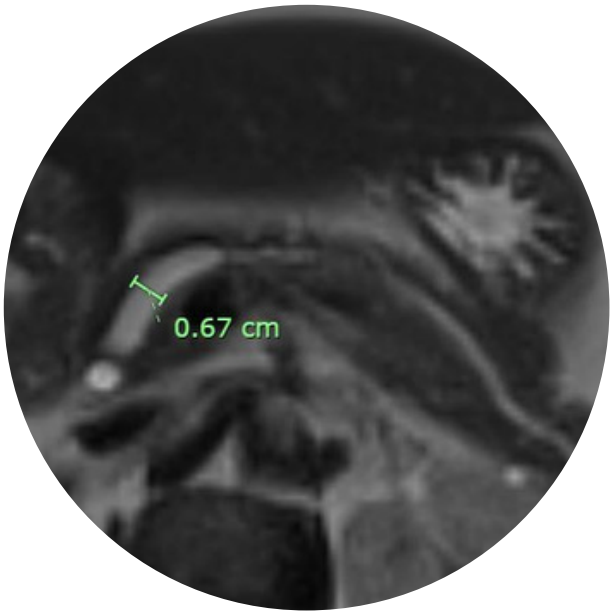
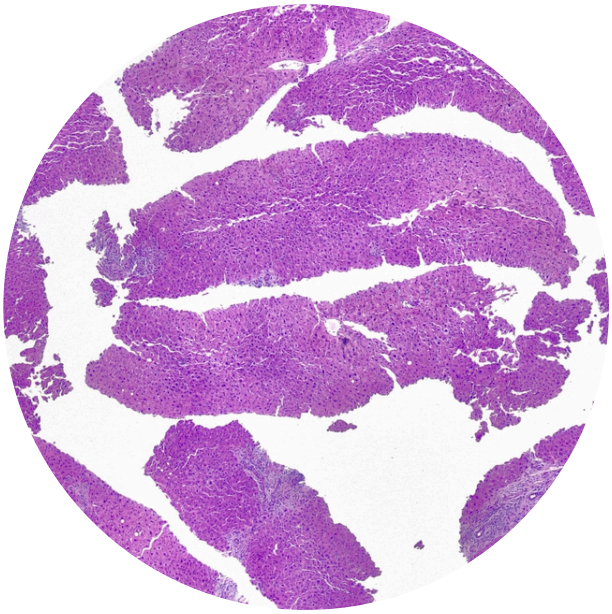
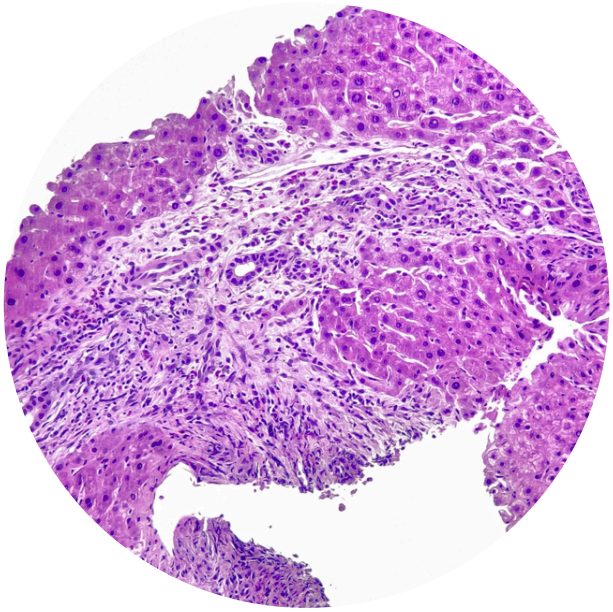




Given the unexplained elevated liver function tests, normal bile duct, and pancreas duct findings suggestive of unrelated focal MD-IPMN, we elected to proceed with EUS-guided liver biopsy.

Core biopsy of the right lobe of the liver using the ***Limaca Precision-GI 20 gauge motorized needle*** was performed in one pass uneventfully. This needle was chosen because of its ability to provide a minimally-bloody high-quality core of tissue. Representative images of the core biopsy are below.





Pathology revealed the following findings:

Liver, right lobe, EUS-guided core biopsy:
-Liver biopsy showing most portal tracts expanded by mixed inflammatory infiltrate including lymphocytes, eosinophils and neutrophils, associated with moderate bile injury, very mild ductular reaction, and fibrosis including "onion skin" like periductal fibrosis. No definite bile duct loss. The lobular hepatocytes show mild mixed inflammatory infiltrate with occasional acidophil bodies. Plasma cells are rare. Immunostains (CK7/19) show very mild ductular reaction and minimal ductular hepatocytes. No viral inclusion seen (immunostains for CMV and EBV are negative). Trichrome stain reveals only portal fibrosis.
-The overall histology is suggestive of secondary sclerosing cholangitis, differential includes drug-induced liver injury (DILI) or infection

OUTCOME

The patient was managed conservatively and one month later her LFTs have improved dramatically, with alkaline phosphatase down to 241 U/L; total bilirubin down to 0.5 mg/dL; and ALT 55 U/L. She was told to avoid Cefdinir in the future. She will require follow-up of her pancreas.