

Background

- Autoimmune Hepatitis (AIH) is a progressive form of chronic hepatitis, with periods of remissions and exacerbations
- Diagnosis includes abnormally high levels of immunoglobulins and multiple autoantibodies, with female predominance
- Clinical presentation is variable, with a spectrum extending from asymptomatic cases to fulminant liver failure
- Presenting symptoms may include abdominal pain, malaise, fatigue, and small joint arthralgia
- We present a case of a 36 YO M with PMH of alcohol dependence and acute pancreatitis who was diagnosed with AIH

Case Description/Methods

A 36-year-old African American male with PMH of alcohol dependence (in remission for 2 yrs), tobacco use, and pancreatitis, presented with epigastric pain

- The patient endorsed non-radiating mid-epigastric abdominal pain 10/10 in severity, associated with NBNB emesis, exacerbated by movement for 2 days
- Vitals: WNL
- Physical Examination: +icteric frenulum, abdominal distension, with liver span 12cm at mid-clavicular line, and absence of fluid wave, shifting dullness, rebound tenderness, or voluntary guarding
- Laboratory studies: pancytopenia, elevated lipase, elevated ALP, elevated AST and ALT with 2:1 ratio, and hyperbilirubinemia [Table 1]
- MRCP showed cirrhotic liver with splenomegaly and varices, as well as with free fluid in the lesser sac along the pancreatic head, duodenum, and right retroperitoneum (compatible with acute pancreatitis) [Figure 2]
- EGD demonstrated findings associated with chronic pancreatitis [Figure 3]
- The patient received IV fluids for pancreatitis
- Additional labs were remarkable for elevated anti-smooth muscle antibody at 26U (ref range: 0-19), ANA positive, with high alpha-1-antitrypsin levels and normal ceruloplasmin levels
- The patient left against medical advice; and was given resources for Hepatology with referral for liver transplant.

References

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- Paronetto, F. (1993, May). Immunologic reactions in alcoholic liver disease. In *Seminars in liver disease* (Vol. 13, No. 02, pp. 183-195). 1993 by Thieme Medical Publishers, Inc.
- Ma, Y., Gaken, J., McFarlane, B. M., Foss, Y., Farzaneh, F., McFarlane, I. G., ... & Vergani, D. (1997). Alcohol dehydrogenase: a target of humoral autoimmune response in liver disease. *Gastroenterology*, 112(2), 483-492.

Results

| Test Name | Reading | Reference Range |
|-----------|---------------------------------------|-----------------|
| WBC | 3.9 x10 ³ /mm ³ | 4.5-11 |
| Hgb | 12.6 g/dL | 13.5-17.5 |
| Plt | 66 k/mm ³ | 140-440 |
| Lipase | 528 U/L | 11-82 |
| ALP | 129 U/L | 34-104 |
| AST | 114 U/L | 13-39 |
| ALT | 47 U/L | 7-52 |
| T. Bili | 4.9 mg/dL | 0.3-1.1 |

Table 1. Laboratory Studies



Fig 1. Abd US notable for cirrhosis w/ possible cavernous transformation of portal vein, heterogeneity of pancreas, & gallstone sludge

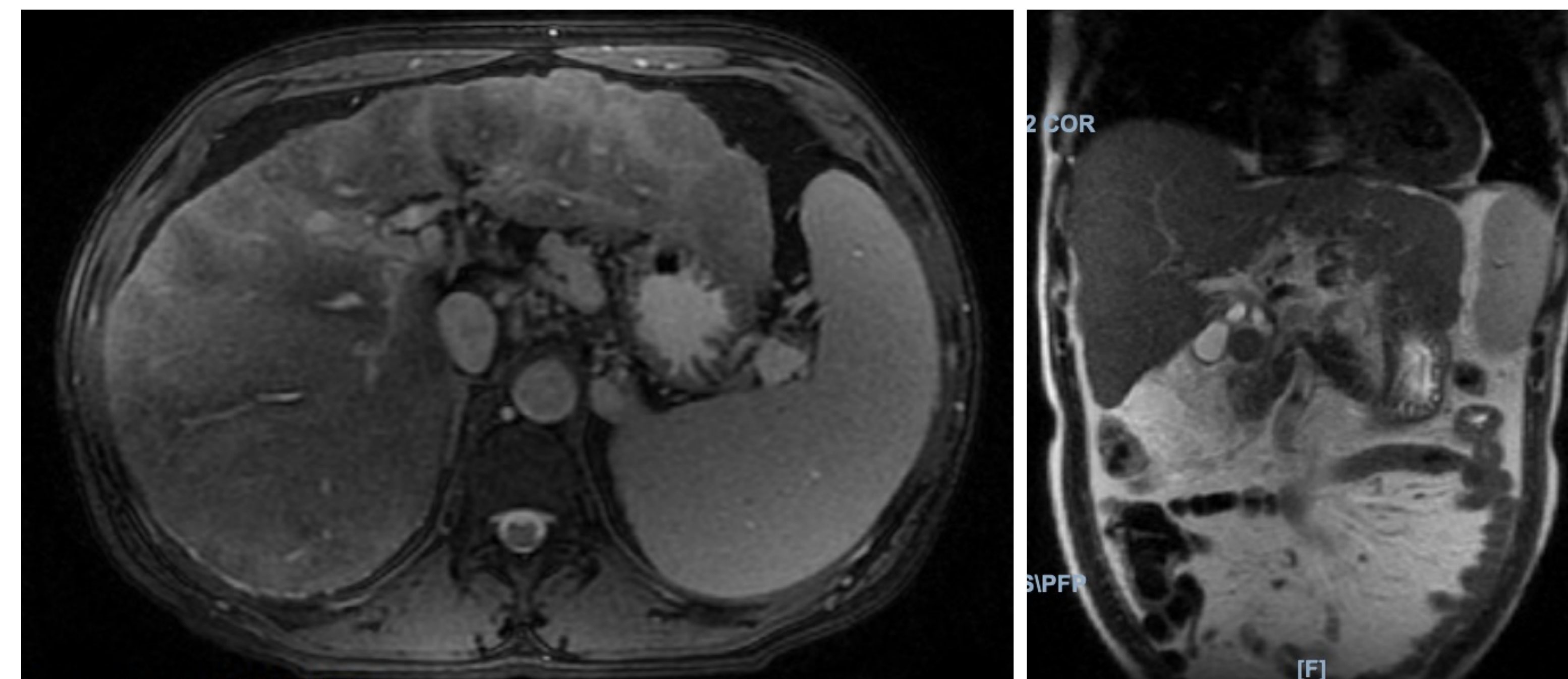
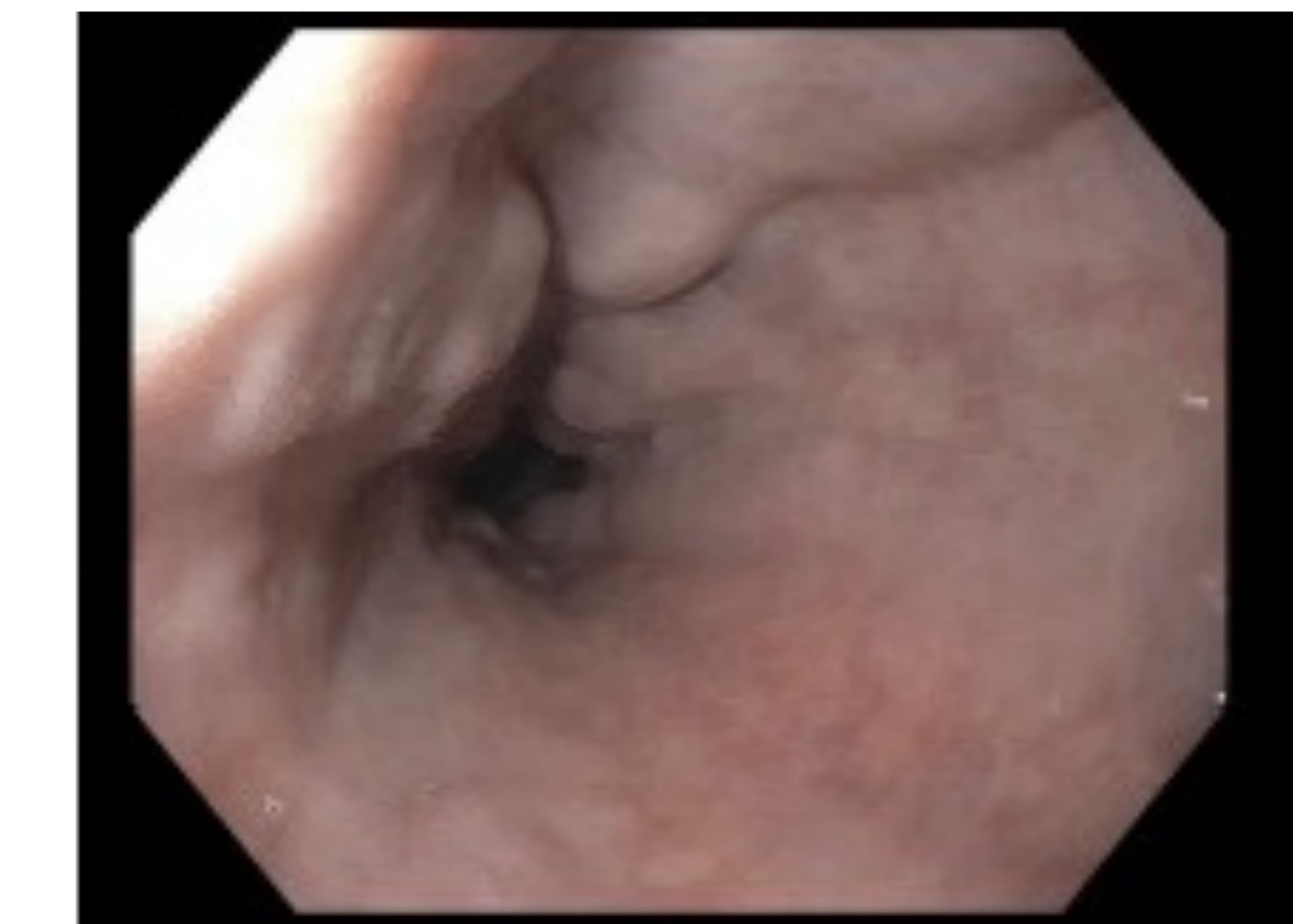


Fig 2. MRCP demonstrating cirrhotic liver w/ splenomegaly & varices, and free fluid in the lesser sac along the pancreatic head, duodenum, and right retroperitoneum (compatible with acute pancreatitis)

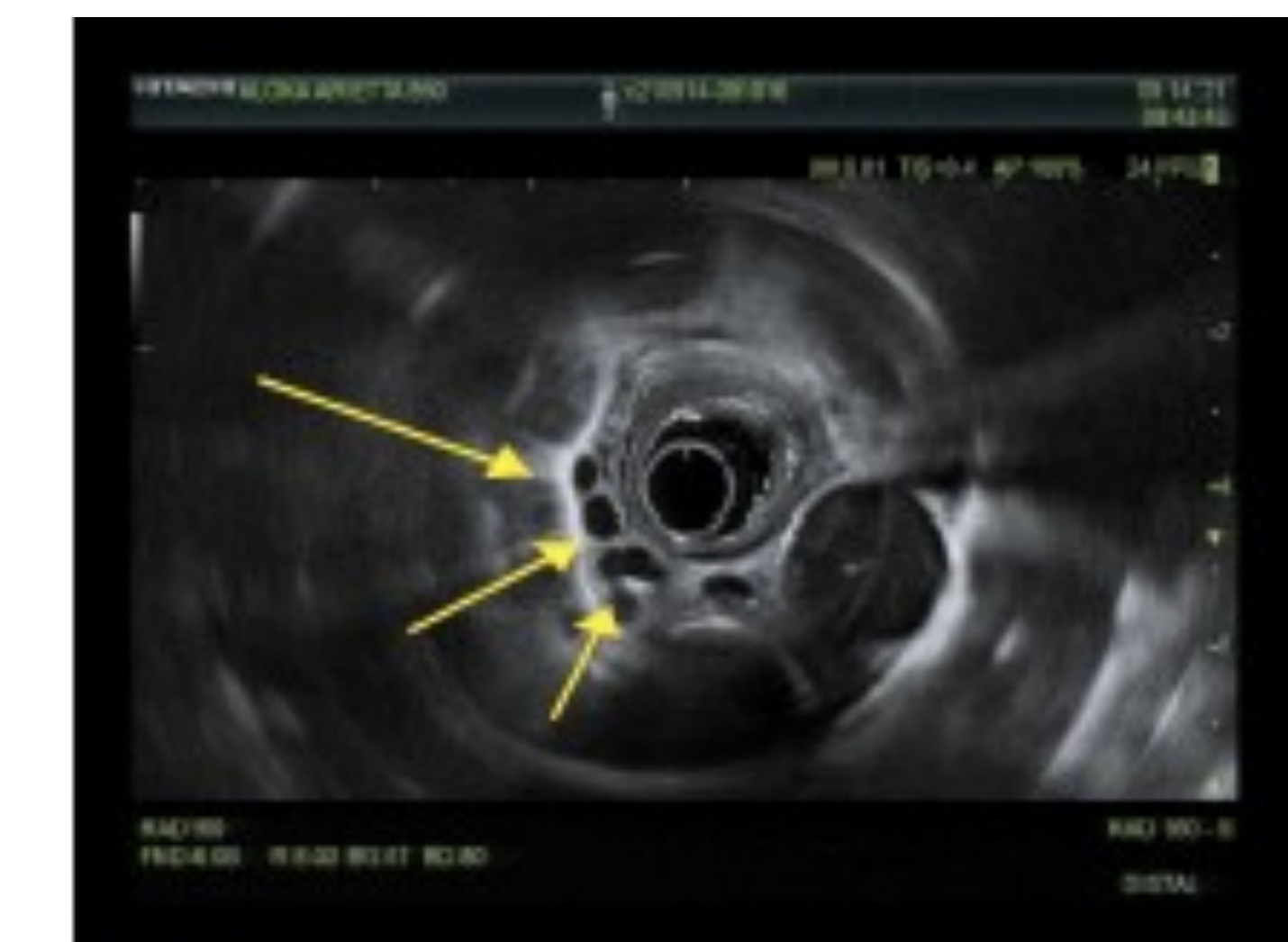
Results (continued)



2 Lower Third of the Esophagus



4 Gastroesophageal Junction



9 Esophageal varices



14 CBD close to Panc and Panc head with calcifications

Fig 3. EGD demonstrating grade II & large (>5 mm) esophageal varices w/o evidence of bleeding, with 2 cm hiatal hernia, portal hypertensive gastropathy, and pancreatic parenchymal abnormalities (calcifications, diffuse echogenicity, hypochoic foci and lobularity), consistent with chronic pancreatitis

Discussion

- Mechanism of AIH remains poorly understood; however, there is an association between the HLA gene & AIH [1]
- Genetic studies have shown HLA-DRB1*0301 and HLA-DRB1*0401 as primary and 2ndary genotypes susceptible to AIH, as well as genetic variants w/ CARD10 & SH2B3 [2]
- Products secondary to metabolism of ETOH like ETOH-dehydrogenase, malondialdehyde, & acetaldehyde can lead to development of autoAbs [3,4]
- Additional research is indicated to evaluate the relationship between AIH & acute pancreatitis.