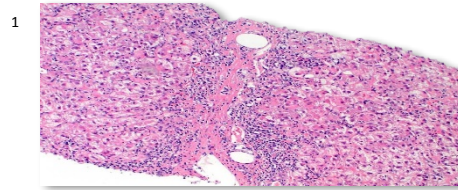


## INTRODUCTION

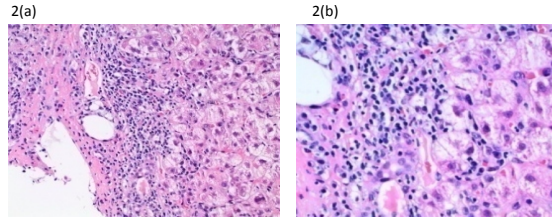
Autoimmune hepatitis (AIH) is often seen in middle- aged females. The presence of a strong alcohol consumption history and male sex can sometimes be confounders resulting in a delay in accurate and timely diagnosis of autoimmune hepatitis.

## CASE REPORT

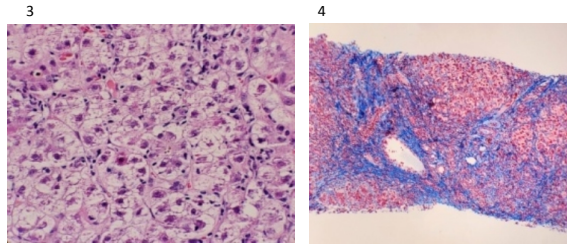
- A 59-year-old male with history of alcohol use disorder with recurrent alcoholic hepatitis and hepatitis C presented with jaundice and pruritus.
- Review of systems was positive for long standing arthralgia. Physical examination was unremarkable except for jaundice
- Lab workup revealed AST & ALT both in 1000s with hyperbilirubinemia. Other findings include significantly elevated serum globulin levels and CRP. Viral hepatitis was positive for hepatitis C and E IgG antibodies. Hepatitis C viral load was undetectable. Serum transferrin saturation, ferritin and ceruloplasmin were within normal limits.
- Abdominal Ultrasound and CT of the abdomen and pelvis were significant for micronodular liver cirrhosis and splenomegaly suggestive of portal hypertension.
- Given the history of arthralgia with significant transaminitis, elevated globulin and CRP levels and negative acute hepatitis workup, autoimmune hepatitis was suspected.
- Liver biopsy revealed the presence of a significant number of plasma cells in advanced bridging fibrosis background.
- Additional workup revealed positive anti-nuclear and anti-smooth muscle antibodies suggestive of AIH type I.



**Figure 1** – Liver biopsy showing moderate to severe lobular and interface active hepatitis and hepatocytes ballooning ( Low power 10X)



**Figure 2(a) and 2(b)** - Liver biopsy showing hepatocytes ballooning degeneration and mixed inflammatory infiltrates including lymphocytes and plasma cells (high power).



**Figure 3** – Higher power of figure 2 showing bile disposition.

**Figure 4** – Liver biopsy stained with trichrome stain. It showed extensive sinusoidal and bridging fibrosis with foci of early cirrhosis.

- He was initially given Prednisone 40 mg daily and then transitioned to mycophenolate mofetil for maintenance therapy.
- 3 months follow up, liver function tests normalized and the patient significantly improved clinically.

## DISCUSSION

- Before diagnosing a patient with AIH, other causes of chronic hepatitis including alcohol induced hepatitis, drug-induced and viral hepatitis should be excluded.
- Determining the type of AIH holds clinical significance since patients with type I AIH respond well to steroids unlike type II which often carries a poor prognosis and requires early liver transplant.
- Patients with AIH need long-term monitoring for overlap syndromes like AIH- PSC, where primary sclerosing cholangitis (PSC) can occur many years later after AIH diagnosis.

## CONCLUSION

It is important in patients with suspected clinical diagnosis of alcoholic hepatitis, to rule out other causes, including viral hepatitis, shock liver, and AIH. AIH is often a diagnosis of exclusion and early treatment initiation with steroids often leads to good long-term prognosis.

## REFERENCES

- Sebode M, Hartl J, Vergani D, Lohse AW, International Autoimmune Hepatitis Group (IAIHG). Autoimmune hepatitis: From current knowledge and clinical practice to future research agenda. *Liver international*. 2018 Jan;38(1):15-22.
- Pape S, Schramm C, Gevers TJ. Clinical management of autoimmune hepatitis. *United European gastroenterology journal*. 2019 Nov;7(9):1156-63.