Syphilitic Hepatitis: Unmasking the Great Masquerader

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Case Presentation

History of Present Illness:

- 22-year-old-male with a history of untreated H. pylori presented after two weeks of right upper quadrant abdominal pain, pruritis, and lower extremity edema. Prior to admission, he had work-up at outside hospital which revealed:
  - ➢ Elevated antimitochondrial (AMA) M2 antibody IgG (42 units)
  - ➢ Positive EBV/CMV IgG
  - ➢ Negative viral hepatitis panel

Physical Examination on Admission:

- Vitals: Temp 36.3°C, BP 111/76, HR 85, RR 19, SpO2 99% (Room Air)
- Tender, non-distended abdomen without rebound or guarding. No hepatomegaly along with peri-orbital edema and 3+ bilateral lower extremity edema up to knees. He also had multiple excoriations on bilateral arms/chest.

Initial Labs:

- Liver enzymes: AST 87 U/L, ALT 91 U/L, ALP 858 U/L, TBIL 1.0 mg/dL
- WBC 14 10E3/mcL

Hospital Course

Infectious workup was pursued when the patient reported recent unprotected sex with two male partners.

- Negative HIV Screen
- Positive IgG/IgM antibodies to both CMV and EBV
- RPR with a titer of 1:128
- Positive treponemal antibody

Nephrology was consulted for nephrotic range proteinuria and recommended biopsy.

- Biopsy revealed: Membranous nephropathy (likely syphilitic)

After one dose of IM Penicillin, the patient had resolution of his symptoms and laboratory abnormalities.

Images

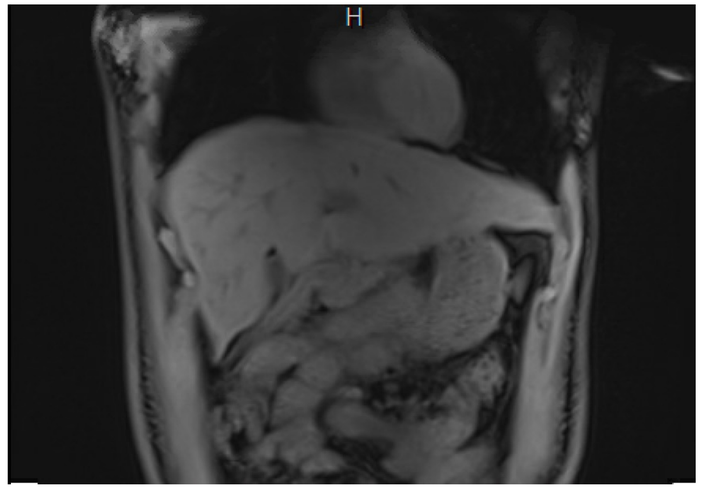

Image 1: MRI showing nonspecific diffuse heterogenous enhancement pattern of the liver parenchyma without focal lesion and moderate volume ascites.

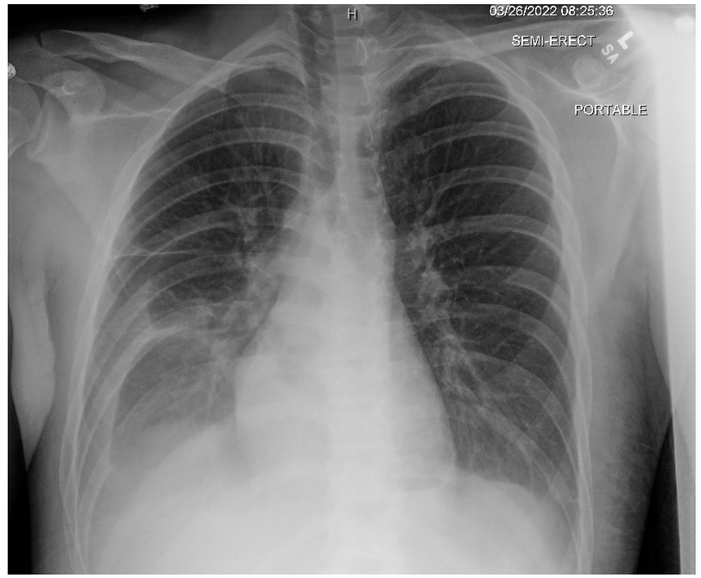

Image 2: Bilateral Pleural Effusions on chest X-ray.

Discussion

- Hepatitis is a rare manifestation of syphilis, occurring in 0.2-3% of patients with syphilis.
- Definition: abnormal liver enzyme levels (typically in a cholestatic pattern), with serologic evidence for syphilis, exclusion of other causes of liver injury, and resolution of abnormal liver enzymes following treatment of syphilis.
- Can occur at any stage of disease, but secondary syphilis is most common.
- Clinical presentation of syphilitic hepatitis is nonspecific and usually involves rash, fatigue, fever, jaundice and abdominal pain.

Conclusion

- Syphilis should be considered as a cause of liver injury in patients with high-risk features. Early diagnosis and prompt treatment is important for preventing progression to late syphilis.

References

- Tolia S, Kassem H, Capatina-Rata A. The Great Impostor: Transaminitis Masking the Coinfection of Syphilis and Human Immunodeficiency Virus. *Case Rep Med*. 2017;2017:1-5.
- Mullick CJ, Liappis AP, Benator DA, Roberts AD, Parenti DM, Simon GL. Syphilitic Hepatitis in HIV-Infected Patients: A Report of 7 Cases and Review of the Literature. *Clin Infect Dis*. 2004;39(10):e100-e105.
- Rubio-Tapia A, Hujoel IA, Smyrk TC, Poterucha JJ. Emerging secondary syphilis presenting as syphilitic hepatitis. *Hepatology*. 2017;65(6):2113-2115.
- Huang J, Lin S, Wan B, Zhu Y. A Systematic Literature Review of Syphilitic Hepatitis in Adults. *J Clin Transl Hepatol*. 2018;6(3):1-4.
- Miyakawa H. False positive reaction in ELISA for IgM class anti-M2 antibody and its prevention. *Hepatol Res*. 2001;20(3):279-287.