

Rare Presentation of Acute Hepatitis A, Acute Hepatitis B with Chronic Hepatitis C Causing Acute Liver Failure

Disclosure: The authors did not report any financial relationships or conflicts of interest

Click for Supplemental Video

Presenting Author: Demilade Adeayo Soji-Ayoade, MD, Internal Medicine Resident PGY2, Internal Medicine, North Alabama Medical Center, Florence, al, Florence, al

Coauthors: Sucheta Kundu, MD , Internal Medicine,PGY2,North Alabama Medical Center, Florence,AL; Aksiniya Stevasarova, MD , Internal Medicine,PGY3,North Alabama Medical Center, Florence, AL; Khushdeep Chahal Program Director ,Internal Medicine, North Alabama Medical Center, Florence,AL

Introduction: Viral Hepatitis is one of the most common causes of acute liver failure, and any Viral Hepatitis from A-E can be the cause except Hepatitis C that has a more chronic course. In this instance however our patient had co-existing Acute Hepatitis A and Acute Hepatitis B /Reactivation of Hepatitis B with Chronic Hepatitis

Case presentation: A 48 y/o Caucasian man with background alcoholic liver cirrhosis and opioid dependence disorder presented with generalized abdominal pain, and jaundice of 3 days, associated with dark colored urine. PMH was significant for covid –19 pneumonia 7 weeks prior to presentation for which he had a short course of steroids. Patient had a past history of IV drug abuse but denied recent usage

On presentation vitals were stable On Examination, He was alert, oriented in time, place and person with generalized jaundice but no stigmata of chronic liver disease. Abdomen was vaguely distended but with no focal signs

Labs significant for AST/ALT 1720/1086 with a total bilirubin of 17.4, INR was 1.4. Serology positive for anti HAV IgM, HbSAg , Anti HBC IgM, HBeAntigen ,anti HCV antibody, HCV RNA. Hepatitis D however was negative

Abdominal Ultrasound showed trace ascites. CT abdomen showed cirrhosis with hepatosplenomegaly

Patient was admitted for GI review and had supportive treatment, following which he progressively worsened and developed acute liver failure with sudden altered mental status requiring sedation and INR of 1.6, he received lactulose and Rifaximin and was subsequently discharged.

Discussion: There have been multiple reports of Co-existing Hepatitis B and C in immunosuppressed individuals, IV drug abusers. However, we are presenting this individual who had Acute Hepatitis A, Acute Hepatitis B or possible reactivation of Hepatitis B with Chronic Hepatitis C with a background of alcohol liver cirrhosis resulting in Acute liver failure.

Multiple studies have shown increased risk of acute live failure with co-infection, or even superinfection without background liver disease, making it even an increased risk of Acute liver failure in this patient with multiple viral hepatitis with background cirrhosis.

Given the difficulty with delineating whether the hepatitis B infection was acute or a reactivation of latent Hepatitis B with the remote use of a short course of steroids during his prior Covid-19 infection, it is unclear whether the use of oral Hep b antiviral medication would have been of any benefit.

This multiple co-infection scenario with Hepatitis A, B and C is quite rare and portends a grave prognosis

Learning Objectives:

- Diagnose acute Hepatitis B as well as reactivation of latent Hepatitis B
- Identify worse prognosis and outcomes in individuals with multiple hepatitis