CASE RECOMMENDATION FORM

Presenter Credential: PharmD

After review of the case presentation and discussion of this patient's case among the ECHO Community of Practice, the following suggestions have been made:

Case Summary

A 46-year-old male with cirrhosis, elevated LFTs, positive HCV viral load, and mild thrombocytopenia. Patient had shared IV supplies with an HCV positive partner about 2 years ago. Ultrasound findings included normal sonographic appearance, minimal biliary sludge, no gallstones, and no biliary obstructions. Patient has a history of injection drug use and heavy alcohol use. Substance use treatment was received and last reported use was 2 years ago. Current medications include multivitamin once daily and ibuprofen 400mg max daily as needed. BMI 22.15. HAV positive. HBV negative and immune. HIV negative. Pertinent labs from 1 year ago include WBC 6.2, HGB 17, HCT 50.3, Platelets 138, Creatinine 0.84, GFR 98, Glucose 88, ProTime/INR 1.0, Total Prot 7.0, Albumin 4.4, ALP 88, AST 172, ALT 617, T. Bili 0.6, HCV RNA viral load too low to identify, HCV Genotype 950, APRI 3.196, FIB-4 2.31.

The patient was referred to GI for additional testing and treatment. GI re-took labs and viral load was at 55,000 with genotype 1a.

Central Question

How should the patient's labs be interpreted? How do you approach the dis-coordinate results between the APRI and FIB-4?

Discussion and Recommendations

Viral Load Considerations

- Viral loads may vary significantly from individual to individual. For a given patient with an established infection, viral loads are typically rather stable (within 1 log value) chronically/over time; exceptions to this might include novel/acute infection, resolving/clearing infection, immune flare.
    - Individuals with cryoglobulinemia can have higher viral loads than what is measured because the virus is bound up in cryoprecipitates.
- This patient may be having an immunorecognition flare.
    - In the case of HCV, ALT and AST values can fluctuate significantly over time. This can also occur with reinfection, where initially low viral loads can suddenly increase dramatically.

Viral Clearance is not likely with this Patient

- Given that this patient has evidence for chronic viremia on follow up labs several months later (and not down trending), it is unlikely that he will spontaneously clear his infection. However, if someone's viral load had dropped from 55,000 to 950 with concomitant elevations in transaminases, it raises the possibility for recent flare/immune recognition and if not already pursuing HCV treatment, reasonable to repeat their labs in 2-3 months to assess for interval clearance.

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Avoid Autoantibody Testing Currently for this Patient

- Do not test for autoantibodies (e.g., ANA, anti-smooth muscle) during acute hepatitis phases as they can come back positive due to the inflammatory response, which can confuse the diagnosis as to whether or not it's autoimmune hepatitis with HCV.
- If the liver enzymes remain abnormal after the patient has cleared hepatitis C, then consider testing the autoantibodies because then you potentially have another pathology.

APRI and FIB-4 Considerations

- Discrepancies between the APRI and FIB-4 scores can be due to factors like low platelet counts from conditions such as ITP.
- If the platelet count is low, which is the main thing that's driving the APRI as a consequence of liver dysfunction, then the spleen will be enlarged.
    - An ultrasound can be used to check for splenomegaly. This does not change whether you treat, but it changes whether or not you screen for HCC.
    - An alternative option, if accessible, is to use a Fibroscan for a more accurate assessment of fibrosis.

Primary Care and Specialty Coordination

- Since this patient was referred to a specialist (GI), the primary care provider should allow the specialist to manage the specific condition while ensuring that follow-up and additional tests are completed as needed. Clear communication of roles and responsibilities between primary care and specialty care is crucial for effective management.

Consider presenting follow-up for this patient case or any other patient cases at a future ECHO Clinic session.

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