

HBV ECHO Case Recommendations



Session 1: August 22, 2022

50 year old Filipino male with elevated AST and ALT and high HBV DNA viral load

Case Recommendations and Considerations:

CATEGORY	RECOMMENDATIONS	Relevant Presentation Question or Concern	REFERENCES/ RESOURCE LINKS
History	<ol style="list-style-type: none"> 1. Mutations in the polymerase protein typically occur through exposure to an antiviral drug, but could be from <u>unintentional exposure</u> to such drugs in unregulated supplements. 2. Ask about dietary supplement use. They are not FDA regulated, and sometimes may be inadvertently contaminated with antiviral medications. Significant use of supplements could explain odd mutation patterns in a patient who was untreated in the past. 3. If the patient has been on corticosteroids, then discern the dose & duration. Steroids increase the risk of HBV reactivation. 4. Consider assessing alcohol intake as such: “In the past week, how much alcohol did you drink?” It is important to understand what patient’s own definition of a “drink” is, i.e. might be a large (40 oz) beer, small (12 oz) beer, bottle of liquor, etc. If the answer is equivocal, I may ask, casually, “a six-pack, a case?” or “one fifth, two fifths?” This is a permissive way to connect because it shows you understand that some people may drink up to a case of beer or a fifth of liquor per day. 	<ol style="list-style-type: none"> 1. A recommendation regarding the particular HBV genotype/mutation profile of this case 2. Steroids confer higher risk for HBV reactivation 3. How to ask about alcohol use 	https://www.hawaiilearning.org/wp-content/uploads/2017/11/DNA-barcoding.pdf
Physical Exam	n/a	n/a	n/a
Diagnostic evaluation	<ol style="list-style-type: none"> 1. A baseline ultrasound is useful in anyone who you’re working up for abnormal LFTs. 	<ol style="list-style-type: none"> 1. Do you recommend elastography for all 	

HBV ECHO Case Recommendations



	<p>Always order a complete US, not RUQ. It provides an evaluation of the spleen and vasculature as opposed to just the liver/gallbladder. It reveals morphology and sometimes stage of disease. It may pick up other clues such as varices, splenomegaly, or ascites. Calculating a Fib-4 score is an easy way to noninvasively help to assess severity of disease/fibrosis.</p> <p>2. Genotype/Mutation testing should be obtained on everyone with evidence of chronic HBV infection (anyone with positive HBsAg). The mutation profile is important for treatment, even if you decide against treating immediately. If treating in the future, it is useful as a reference. Some genotypes confer higher risk of liver cancer. The mutation profile is useful for “grey zone” scenarios in which you are deciding when to treat, as it gives risk profile information. It continues to be of use in the future as you continue to care for the patient.</p>	<p>evaluation of elevated liver function tests, or should you order labs first prior to imaging?</p> <p>2. When do we do genotype mutation testing?</p>	
<p>Medication Therapy & Adjustments</p>	<p>1. Threshold for treatment is low. Elevated liver enzymes with elevated viral load are indications for treatment. In addition, men have higher risk of advancement to complications such as fibrosis and HCC. It is unclear how long he has had the disease (age 50 at presentation) but for this Filipino patient with hx of infected brother, vertical transmission at birth is likely. For this patient with lifelong infection, treatment is indicated. His viral load is very high (<u>As per the Asian American treatment algorithm, the threshold for treating is 2,000 IU/mL in the presence of elevated ALT</u>). A prolonged or fluctuating</p>	<p>1. What are the treatment recommendations for this patient?</p> <p>2. If treatment is not recommended, what are monitoring recommendations?</p>	<p>See Reference: <u>Asian American treatment algorithm</u> by Dr. Myron Tong (low threshold for treatment in this high risk population compared to other guidelines).</p> <p>https://www.hawaiilearning.org/wp-content/uploads/2022/08/Tong-Article_APT-47-1181.pdf</p>

HBV ECHO Case Recommendations



	<p>elevation of the ALT over time is an indication that disease is active and injuring the liver. Per Dr. Tsai: current treatment is effective, with low rates of viral resistance, and low side effect profile, which encourages early treatment. Data show that early suppression of virus reduces risk of liver cancer.</p> <p>2. If the patient has elevated LFTs, but low viral load, then lab testing every 3 months is acceptable. Evaluate for alternative causes of liver disease, such as NAFLD.</p>		
Vaccination	<p>1. Anyone that you choose to screen for hepatitis and are subsequently found to be not previously exposed to hepatitis A or B (i.e., not immune) should be vaccinated</p> <p>2. Consider a best practice of routinely vaccinating at the outset of care while also ordering the screening tests. It is very low risk to re-vaccinate, even if not needed, and begins the series for those who do need.</p>		
Social Determinants of Health (SDOH)	<p>1. Ask about employment, marital status and social support system to prepare for any questions about treatment as it is initiated. Ask about partner HBV status and HBV status of family members or sexual contacts to assess transmission risk. Screen them and vaccinate as indicated.</p>	<p>1. Transmission risk factors can be obtained in the social history</p>	
Behavioral Health	<p>Pt was lost to follow up. Consider some reminder system in EHR to assist in tracking and follow-up. Excellent opportunity for team care.</p>	n/a	n/a
Screening	<p>1. Z20.5 Contact with and (suspected) exposure to viral hepatitis.</p>	<p>1. What ICD code should we use for screening?</p>	<p>Coverage Guidance: https://www.cms.gov/medicare-coverage-</p>

HBV ECHO Case Recommendations



	<p>2. Z20.828 Contact with and (suspected) exposure to other viral communicable diseases</p> <p>3. Z11.59 Encounter for screening for other viral diseases</p> <p>4. Screen anyone for HAV, HBV, HCV who you think may be at risk (e.g., immigrants or children of immigrants from Asia or other endemic areas, Pacific Islanders, marginalized populations like MSM or PWD, etc.) even in the absence of transaminitis. If you find they were not previously exposed to A or B then they should be vaccinated.</p>	<p>2. When do you recommend routine HBV screening?</p>	<p>database/view/ncd.aspx?ncid=369&ncdver=1&keyword=hepatitis%20b&keywordType=starts&areald=s16&docType=NCA,CAL,NC D,MEDCAC,TA,MCD,6,3,5,1,F,P&contractOption=all&sortBy=relevance&bc=1</p>
Risk Reduction	<p>1. Screen those at risk (immigrants from endemic areas or children of said immigrants), treat early, and vaccinate if not already exposed.</p>		
Other	n/a	n/a	n/a

PLEASE NOTE that case consultations and recommendations for the HBV ECHO do not create or otherwise establish a provider-patient relationship between any participant, Hawaii Learning Groups, and/or any other clinician on the HBV ECHO faculty.