



San Francisco Hep B Free - Bay Area ECHO Notes

Session 10
July 20, 2021

- I. **Didactic Presentation: HBV and Nonalcoholic fatty liver disease (NAFLD)** (Dr. Edward W. Holt, M, Hepatology and Liver Transplant at California Pacific Medical Center) - presentation can be found at <https://www.sfhepbfree.org/echo-program> Password: Echo2020
- II. Case Presentation: Dr. Chris Co, Internist at Asian Health Services in Oakland, California.

Case Summary

- 42 year old Chinese male, with known hepatitis B infection since 1996 (25 years), Elevated ALT with low viral load and metabolic syndrome, suspects fatty liver, BMI 31 (Over Wt: 25-29; obese >30), Family history - **mother has hep B**, no other family history of cirrhosis or liver cancer, meds: Atorvastatin (20mg qd), Fish oil (Lovaza, 1 cap qd)
- Labs:
 - Hep A immune, Hep C negative, HIV negative
 - 11/2018: AST 27 ALT 43 VL 247
 - 7/2019: AST 27 ALT 44 VL 842
 - 5/2020: ALT 48 AST 24 VL 402 FASTING GLUCOSE 105
 - 11/2020: ALT 48 AST 28 VL 292
 - 2/2021: ALT 47 AST 25 VL 694
 - 5/2021: ALT 58 AST 34 VL 94 FASTING GLUCOSE 117
 - Serum AFPs have been normal since 11/2018
- Clinical questions:
 - Would this patient with suspected HBV & fatty liver need treatment for hepatitis B?
 - Would ordering a liver elastography be helpful?
 - Would this patient benefit from Vitamin E?

Recommendations from Project ECHO panel:

Dr. Anita Chang – Primary Care (Asian Health Services)

Dr. Samuel So – Surgical Oncologist/Founder of Asian Liver Center (Stanford Health)

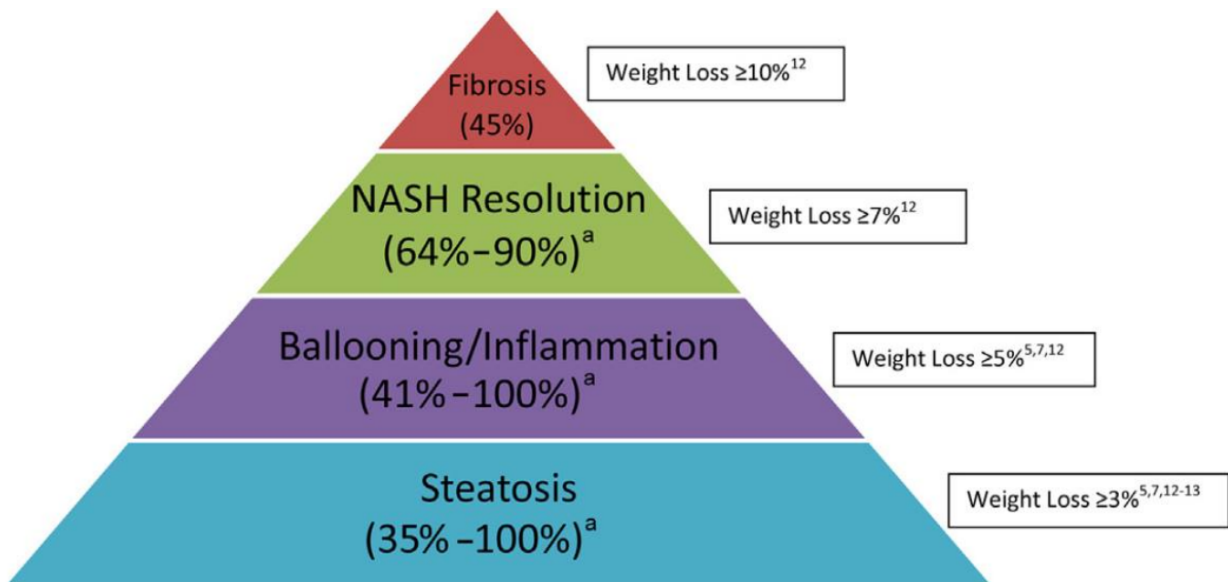
Dr. Amy Tang – Primary Care (North East Medical Services)

Dr. Will Holt - Hepatology (Sutter Health)

Dr. Frank Trinh – Infectious Disease (San Mateo Medical Center)

- **Focus on weight loss via diet and exercise**

- Recommendations for weight loss:
 - Mediterranean diet can be good, not a low fat diet but includes healthier fats (omega-3)
 - Intermittent fasting may be an appropriate strategy for some patients (don't necessarily need to cut calories dramatically)
 - Aerobic exercise is a reliable way to achieve weight loss: resistance exercise is also a good option. 30 minutes. 3 times weekly is recommended.
 - Emphasis on low sugar, low carb, low animal fat diet; dietary fats should be polyunsaturated; saturated fats should be minimized



- Weight loss of $\geq 10\%$ will reverse fibrosis

Other considerations:

- Could check for hepatitis D, may not be likely at this level of ALT elevation but definitely on the list of other possible causes of elevated ALT in HBV
- Why lab results suggest NAFLD over HBV:
 - 6 recorded tests of ALT, AST and viral load do not show clear correlation.
 - Indicators of fatty liver are present in this case:
 - Obesity
 - Impaired fasting glucose and metabolic syndrome
- Low FIB-4 (.065) - sensitivity of a low score is very high. Would not biopsy the patient in this case
- Would consider biopsy more seriously if FIB-4 were higher (above the 1.30 or even 1.45 cutoff).
 - Fibroscan may help further define risk as it says more about intermediate stage fibrosis and doesn't just have a high cutoff and a low cutoff
- If available, all patients with HBV infection should get a fibroscan
- **Vitamin E:**

- Pro: reduces inflammation and ALT and affects disease course; may prevent clinical outcomes (fibrosis, cirrhosis, etc) long-term but this not seen in PIVENS trial
- Con: may be lifelong treatment and is associated with at least some risks
- Non-invasive tests are easy and free – can easily find FIB-4 calculator online
- < insert website from chat that Amy and David saltman had put in >
- Strongly consider GLP-1 agonists or pioglitazone in prediabetic or diabetic patients with NAFLD or NASH – there is now reasonable evidence for this.
- Up to 10% of NAFLD is “lean NAFLD”, likely more in Asian patients (ie, BMI <23 kg/m²)
- Risk of metabolic disease (diabetes) differs with ethnicity – this has to do with both anthropomorphics and genetics (PNPLA3)
- Hepatic echogenicity can be seen on ultrasound in chronic HBV and can be confused with steatosis.
- Clinical judgment and examination of both metabolic and liver-related risk factors is key in managing NAFLD and NASH – we can’t / don’t biopsy everyone