



GHAPP

Gastroenterology & Hepatology
Advanced Practice Providers

2021 Fourth Annual National Conference

September 9-11, 2021

Red Rock Hotel – Las Vegas, NV

Disclosures

All individuals in control of the content of continuing education activities provided by the Annenberg Center for Health Sciences at Eisenhower are required to disclose to the audience any real or apparent commercial financial affiliations related to the content of the presentation or enduring material. Full disclosure of all commercial relationships must be made in writing to the audience prior to the activity. All staff at the Annenberg Center for Health Sciences at Eisenhower and the Gastroenterology and Hepatology Advanced Practice Providers have no relationships to disclose.

Workup of Elevated Liver Enzymes

Jeremy Davis ACNP-BC
Gastrointestinal Specialists AMC
Shreveport, LA

Disclosures

Jeremy Davis ACNP-BC

No financial relationships to disclose.

PATIENT HISTORY



- ✓ 50 y.o. CF presents to clinic in 2013
- ✓ Breast CA s/p mastectomy, chemo and radiation (2010)
- ✓ Incidental hepatic steatosis on u/s
- ✓ Elevated AP, AST and ALT
- ✓ BMI 36, GERD, HTN, low HDL
- ✓ No social risks, blood transfusions, or FH liver dx

Diagnostic Studies



- CBC, CMP, PT/INR
- Anti-mitochondrial Ab
- ANA
- ASMA
- Ferritin, TIBC, iron sat
- Hepatitis A, B, C
- Fibrosis evaluation
 - Fibroscan
 - Liver biopsy
- What other tests?

Differential Diagnosis

- NASH
- Primary Billiary Cholangitis (PBC)
- Primary Sclerosing Cholangitis (PSC)
- Hemochromatosis
- Celiac disease

Treatment Options

PBC

- Ursodeoxycholic acid 13-15 mg/kg/day
- Obeticholic acid 5 mg/day
- Fibrates

NASH

- Weight loss
- Exercise
- Pioglitazone
- Vitamin E 800 IU/day



Patient Follow-Up

- Short-term plan
 - Timing including additional labs, procedures, clinic visits
- Long-term plan
 - Does the patient stay with you? If so, for how long?
 - Do you release back to PCP? If so, at what point?

Case Study

- Patient Profile: 56 y/o Caucasian male w/ DMII, HTN, hyperlipidemia, presented from PCP with reported elevated LFTs and presumed fatty liver from NASH Fibrotest assessment (F1-F2).
- No ETOH, no supplement use, no family hx of liver disease
- Home Meds included: trulicity, atorvastatin, metformin, jardiance, ramipril.
- Which tests/labs should be ordered?

Results of Tests/Labs

- Results
 - CBC – normal. INR 1.0, CMP Na 145, Cr 0.76, Tbil 0.4, ALP 150, ALT 149, AST 76, Albumin 3.9, Total Protein 8.7.
 - Ceruloplasmin, acute hep panel, iron studies, A1aT were negative.
 - ANA 1:640, ASMA 1:80, AMA 0.1 (weak positive). GGT 56.
 - Liver US – fatty liver, no hepatic mass or lesion, prior cholecystectomy, mild splenomegaly
- Differential diagnoses – NASH/ Autoimmune hepatitis/ PBC/ Drug induced hepatitis?
- Is any further workup necessary?
- What is the diagnosis?

Diagnosis

- Diagnosis: NASH w/ Autoimmune hepatitis.
 - Patient had positive autoimmune markers.
 - Initially patient declined a liver biopsy, therefore fibroscan was ordered – completed, patient finally agreed to liver biopsy, and it showed mild steatosis w/ moderate chronic hepatitis w/ plasma cells and interface activity c/w autoimmune hepatitis, with stage 1 fibrosis.
- Management options available for this patient?

Treatment Options

- Options: Prednisone, Azathioprine, budesonide, can consider mycophenylate, tacrolimus (2nd line)
- Important to check TPMT activity to see how patient will tolerate to azathioprine use prior to initiation of azathioprine therapy.
- In this patient, given he was diabetic, prednisone was not used, TPMT genetics were normal, Azathioprine 50mg daily was started.

Patient Follow-Up

- Patient Care

- Short-term plan

- Initially, followed closely while starting azathioprine, followed at 6 weeks, 12 weeks, then q 6 months x 1 year.
 - CBC and CMP were re-assessed at initial follow-up visits.
 - Vitamin D level 25-OH was assessed after initial diagnosis-low – therefore required Vit D supplement daily.

- Long-term plan

- Patient has been followed annually w/ hepatology.
 - CBC, CMP, Vitamin D 25-OH, IgG annually.
 - Pt has remained stable on azathioprine.