

HEPATITIS CASE STUDY

Tiffany is a 32 yo female who presents to your office requesting screening for Hepatitis. She read an article in People magazine about Naomi Judd who was diagnosed with Hepatitis at a routine office visit and this saved her life.

What risk factors would you ask about to assess her risk of Hepatitis?

**IVDU Tattoos Travel or birth in endemic areas
Mother w/ Hep C Needlestick injuries
High risk sexual behavior
Transfusion or transplant before 1992 Dialysis**

She denies all risk factors that you bring up. She does complain of chronic fatigue and of feeling achey all over at least for the past 3-4 months. She does not work outside the home and cares for her 2 children – ages 8 and 6. Stable partner x 4 years and denies any substance abuse. No medications except OCPs and NKDA. PMH depression with a suicide attempt 5 years ago.

What are the USPSTF screening recs re: Hepatitis C?

Not enough data to support screening of asymptomatic individuals. Hepatology and GI recs support screening persons with risk factors.

Her PE is unremarkable apart from obesity (BMI 30). You look back and see that she did have AST/ALT elevated but less than 2x ULN about 2 years ago at an ER visit for abdominal pain and nausea.

It becomes clear to you that she will not feel satisfied with this visit unless you screen her for Hep C. **Which test(s) will you order?**

**Hep C Ab (Anti-HCV = ELISA)
HIV and Hep B screening as well??
Repeat CMP and CBC and TSH given fatigue?**

As you might have expected, her Hepatitis C screening test comes back positive. Her AST and ALT are elevated at 93 and 102. You bring her back in follow-up to discuss results.

What are your counseling / education goals for this visit?

**Counseling re: transmission prevention, alcohol reduction, weight loss, medication caution
Next steps in eval of Hep C – explain studies, consider referral**

What other tests or interventions do you plan to order?

**Screen for HIV and Hep B and A if not already done
Hep B and A vaccination as appropriate
Evaluate for other liver diseases – HH, Wilson's, etc.
Evaluate liver function – INR, albumin. Check CBC – plts.
Consider RUQ U/S to eval fatty liver v. cirrhosis
Next steps in eval of Hep C – viral type and load**

Tiffany states she has a cousin who was diagnosed with Hep C but her body “fought it off” and now she is free of disease. She wants to know what the likelihood of this is in her case. **What would you tell her?**

Studies suggest about 20% of people who are acutely infected will sero-convert, usually within the first 6 months. Getting a better sense of when she thinks she might have been infected and checking a viral load will help tease out the chances of this for this patient.

She is currently only sexually active with her partner. He has recently been tested as well and is Hep C negative. She is worried about what precautions she should take to prevent him from getting infected. **What would you tell her?**

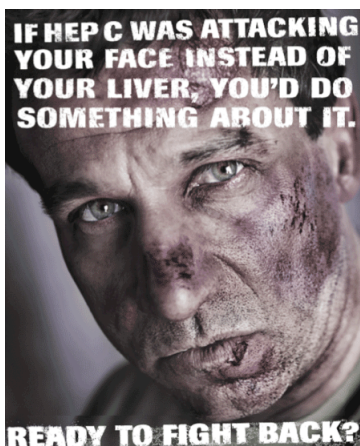
**She should not share razors, nail clippers, tooth brushes.
Condoms are not recommended routinely in monogamous relationships but would reduce further the already low risk of transmission (1/1000 per year).**

Tiffany's grandfather was an alcoholic and died of complications of cirrhosis. She wants to know if she is “going to end up like that...” and if so, how soon?

What is her chance of developing cirrhosis in the next 15 years and what factors might make her more or less likely to progress?

After HCV chronic is diagnosed, cirrhosis develops in 20% after 10-20 years. Among pts with cirrhosis, complications develop in 30% over 4 years. The risk of HCC is 3%/yr in people with cirrhosis.

Risks for progression include: obesity (NASH), comorbid HIV, regular alcohol or marijuana intake, infection at 40 yo or greater. Children and African Americans are less likely.



Tiffany returns in follow-up ready to “fight this thing!” She has completely eliminated alcohol but is having a hard time losing weight – actually is eating more as a way to cope with her anxiety about her illness. Her results are:

Hep C viral load 931,000 IU/ml --- Genotype 1a
Normal CBC and LFTs, HIV negative
Ultrasound with fatty infiltration

She wants to know more about her results and next steps – what will you tell her based on her current status?

Her viral load is moderately high. Her genotype is the most common one in the United States and is associated with about a 40-50% response to treatment. Normal LFTs are not a reliable indicator of the severity of liver disease. U/S is also not a definitive test.

Next steps would include a visit to a hepatologist to discuss treatment options and possible liver biopsy to better assess the extent of damage to her liver at this point.

Tiffany returns to see you after a visit with the hepatologist that she found confusing. She was offered a liver biopsy to better stage her liver disease but thinks they also said she might not be a good candidate for treatment. She would like your opinion. What is the treatment for Hepatitis C?

Oral ribavirin daily, pegylated interferon sc weekly

What are the contraindications to and the side effects of treatment?

C/I - active depression, pregnancy, other autoimmune dx, other severe chronic illness, non-compliance, decompensated cirrhosis, hematologic disorders

SE - fatigue, malaise, n/v, weight loss, depression, headache

Severe & uncommon- duicide, hemolytic anemia, MI, pulm fibrosis, autoimmune thyroiditis, sepsis, retinopathy

Tiffany returns to the hepatologist and has a biopsy that shows only mild fibrosis; therefore they decided against treatment at this time.

As you see her in follow-up, what extra-hepatic manifestations of Hepatitis C should you be on the watch for?

Renal dysfunction

Membranous proliferative GN
Membranous nephropathy

Rheumatologic

Raynaud's
Sicca syndrome
Arthritis / arthralgias
Leukocytoclastic vasculitis

Hematologic

Lymphoma
Monoclonal gammopathy

Diabetes mellitus

Autoimmune thyroiditis

****Cryoglobulinemia**
may be underlying etiology of many of these disorders
Present in 54% of chronic HCV

Consider monitoring TSH, UA for protein and casts and fasting blood sugars. Check cryoglobulins if she develops symptoms concerning for rheumatic or kidney disease.