

Question 3 – August 19

A 29 year male with a longstanding history of Crohn's disease, who has been in remission for the last 6 months, presented to the hospital with bloody diarrhea and abdominal pain. The colonoscopy revealed severe colitis. The stool for culture and sensitivity and C. difficile toxin were negative. He was treated with IV steroids with partial resolution of his symptoms. The patient is being considered for treatment with anti-TNF agents. He gives a history of Jaundice at age 19 while using illicit drugs but has never been evaluated.

His laboratory values done during the hospitalization revealed:

AST: 25IU/dl(normal 10-35)

ALT:20IU/ml(Normal 10-35)

Total Bilirubin:0.4mg/dl(0.1-1.2)

HBsAg: (+)

HBeAg:(-)

HBeAb(+)

HBV DNA: Undetectable

How would you advise this patient?

- A. No intervention as he is a carrier for HBV
- B. Initiate anti-TNF alpha therapy and initiate anti-HBV therapy if ALT rises 2-fold above normal.
- C. Initiate anti-TNF alpha therapy and monitor HBV DNA levels; initiate anti-HBV therapy if levels increase.
- D. Start anti-HBV therapy now and continue it indefinitely for 6-12 months after the withdrawal of anti-TNF alpha therapy.

Answer: D

Patients with HBsAg should be considered for prophylaxis prior to undergoing treatment with any immunosuppressive medication including steroids, immunomodulators, or biologics to prevent HBV reactivation. While there are no data in IBD patients specifically, prophylaxis has been shown to be beneficial in patients undergoing chemotherapy. The treatment guidelines from the American Association of the Study of Liver Diseases (AASLD) recommend if the treatment is expected to be 12 months or less and the baseline HBV-DNA is undetectable, then lamivudine or telbivudine can be used. For the treatment that is expected to last longer than 12 months, entecavir or tenofovir should be used⁽¹⁾. Although no consensus guidelines provide a recommendation for exact timing of prophylactic anti-HBV therapy, expert opinion suggest that it should precede anti-TNF therapy by about 1-2 weeks. Delaying anti-HBV therapy until after the start of immunosuppressive therapy may not fully prevent the activation of HBV because viral replication begins prior to the onset of sign or symptoms. In addition, rescue therapy after the onset of severe reactivation hepatitis would not likely to be effective. The duration of anti-HBV therapy may be indefinite as long as anti-TNF alpha therapy is continued, in contrast to defined, finite therapy for treatment of specific cancers, which likely affects both the risk of

reactivation and risk of prophylactic therapy^(2,3). The HBV prophylaxis is recommended for six months to a year after the completion of chemotherapy or immunosuppressive therapy as HBV reactivation may occur after chemotherapeutic or immunosuppressive agent is discontinued.

References:

1. Lok AS and McMahon BJ. Chronic Hepatitis B Update 2009. *Hepatology* 2009;50:1-36.
2. Hou JK, Velayos F, Terrault N, Mahadevan U. Viral hepatitis and inflammatory bowel disease. *Inflamm Bowel Dis* 2010; 16: 925–32.
3. Nathan DM, Angus PW, Gibson PR. Hepatitis B and C viral infections and anti-tumor necrosis factor-alpha therapy: guidelines for clinical approach. *J Gastroenterol Hepatol* 2006;21:1366-71.