Too Much Turmeric? A Case of Drug-Induced Liver Injury

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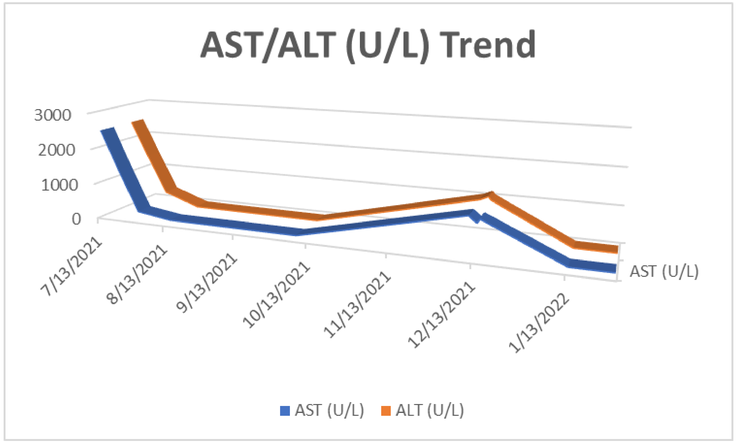
Introduction

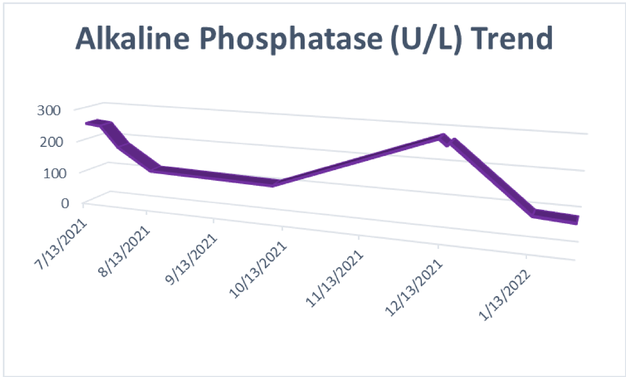
Drug induced liver injury, the most common reason for drug withdrawal, accounts for approximately 10% of all cases of acute hepatitis. Herbal and dietary supplements have been indicated in approximately 15 to 20% of all reported drug induced liver injury cases. Turmeric, a very popular herbal and dietary supplement, is an herb derived from a Southeast Asian plant, Curcuma longa. It has been widely used for its anti-inflammatory properties to treat many conditions and is considered safe at appropriate doses.

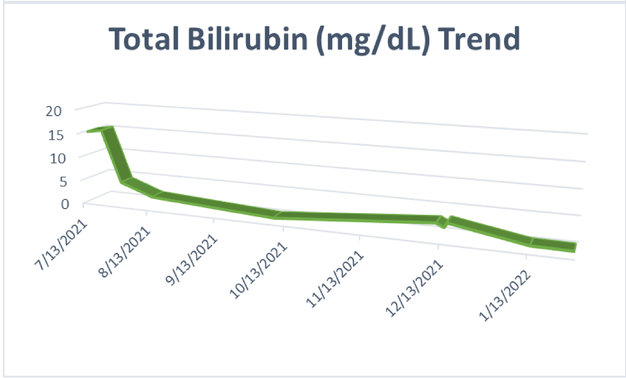
Case

A 65 year-old female was referred for jaundice associated with fatigue and pruritis. Her medical history was significant for hyperlipidemia and arthritis. Her medications included aspirin 81 mg, rosuvastatin 5 mg, niacinamide 500 mg, and various vitamins and supplements, including 1000 mg per day of Turmeric. She denied using alcohol, IV drugs, or acetaminophen. Physical exam was unremarkable, except for diffuse jaundice and scleral icterus. Blood work revealed an AST of 2,460 U/L, ALT of 2,464 U/L, total bilirubin 14.9 mg/dL, and alkaline phosphatase of 250 U/L.

An acute viral hepatitis panel and CBC were within normal limits. Further labs were unremarkable, including negative serologies for autoimmune hepatitis. An MRI of her abdomen revealed cholelithiasis and periportal edema, with no evidence of cholecystitis, choledocholithiasis, or biliary ductal dilatation. At onset of symptoms, the patient had stopped all of her medications and supplements. Within three months, the jaundice had resolved, and liver enzymes returned to normal. However, two months later the patient returned with diffuse, yet milder jaundice. Labs again noted markedly elevated aminotransferases and total bilirubin. Other liver disease labs, including autoimmune serologies, remained negative. She reported that while she remained off her statin, she had restarted Turmeric three weeks prior. A liver biopsy revealed pronounced interface chronic hepatitis with lymphocytes and plasma cells, extending into the lobule with Kupffer cell activation. The Turmeric was again discontinued. The jaundice subsequently resolved, and liver enzymes normalized within six weeks.







Discussion

This is a case of Turmeric induced liver injury with recurrence after re-challenge. While Turmeric is considered a safe herbal supplement at appropriate doses, it must be considered as a primary cause of drug induced liver injury and acute hepatitis. While most patients tolerate this herbal and dietary supplement without incident, more research is needed to help identify individuals who are potentially at risk for adverse events.