**INTRODUCTION**

Kratom is an herbal supplement that has gained increased popularity due to its analgesic and psychotropic properties. It has been described as a rare cause of acute liver injury. We describe a case of a middle-age man who presented with drug induced liver injury (DILI) secondary to Kratom use.

**CASE PRESENTATION**

51-year-old man presented with jaundice, dark urine, malaise and anorexia for 4 weeks. The patient endorsed a history of heroin use for 3 years and a history of vodka intake on the weekends. Months prior presentation, he complained of intermittent nausea, diffuse pruritus, myalgia and muscle cramps which he attributed to heroin withdrawal. He reported using a new herbal supplement containing Kratom for the past month to alleviate muscle pain. Patient had no history of recent travel, recreational outdoor activities or history of sexually transmitted infections.

Laboratory work-up significant for:
- Total bilirubin 9.7 mg/dl
- Direct bilirubin 7.5 mg/dl
- Alkaline phosphatase (ALP) 427 U/L
- Gamma-glutamyl-transferase (GGT) 2271 U/L
- Alanine aminotransferase (ALT) 458 U/L
- Aspartate aminotransferase AST 234 U/L.

Complete blood count, coagulation testing, acetaminophen level, urine toxicologic screen and other chemistries were negative. Autoimmune panel revealed negative ANA with anti-smooth muscle antibody 1:80.

Abdominal ultrasound showed a slightly increased echogenicity of the liver, CT abdomen and pelvis with intravenous (IV) contrast showed hepatomegaly with no detectable parenchymal lesion or intrahepatic bile duct dilatation. Magnetic resonance cholangiopancreatography (MRCP) revealed hepatic steatosis with mild heterogeneous enhancement.

Complete blood count showed no significant neutrophils, lymphocytes, histiocytes, few eosinophils and rare plasma cells with interface activity and minimal patchy lobulitis, minimal macrovesicular steatosis and focally bile duct proliferation, negative iron stain and no significant fibrosis (stage 1).

**DISCUSSION**

Kratom is an extract of the tree Mitragyna speciosa native of Southeast Asia. It is used recreationally as an energy enhancing supplement, as an opioid substitute or as treatment for opioid withdrawal by stimulating µ- and δ-opioid receptors. It has gradually become a concern although there is a lack of sufficient data to suggest that these interventions improve outcomes.

Hepatotoxicity induced by Kratom has been described by few case reports, however, the exact mechanism of injury is unknown. Patients typically present with fatigue, nausea, jaundice, pruritus and dark urine with a cholestatic or mixed pattern liver injury after approximately 1-8 weeks of exposure.

He was eventually discharged and counselled to abstain from both herbal and substance use. Upon follow up in the outpatient liver clinic his liver enzymes normalized despite continued use of heroin and alcohol.

**CONCLUSION**

Herbal supplement- induced liver injury can be overlooked in patients admitted with liver function derangements. Given the rise in use of this herbal supplement in recent years, physicians should be vigilant and obtain thorough history in all clinical scenarios to evaluate for potential reversible causes of liver injury.

**REFERENCES**
