

# Hepatotoxicity from marijuana gummies.

Khushboo V. Bhatia<sup>1</sup>, MBBS; Lipisha Agarwal<sup>1</sup>, MBBS; Ruma Rajbhandari<sup>2</sup>, MD, MPH..

<sup>1</sup>Department of Internal Medicine; <sup>2</sup>Division of Gastroenterology,  
Mount Auburn Hospital, Cambridge, MA



## Introduction

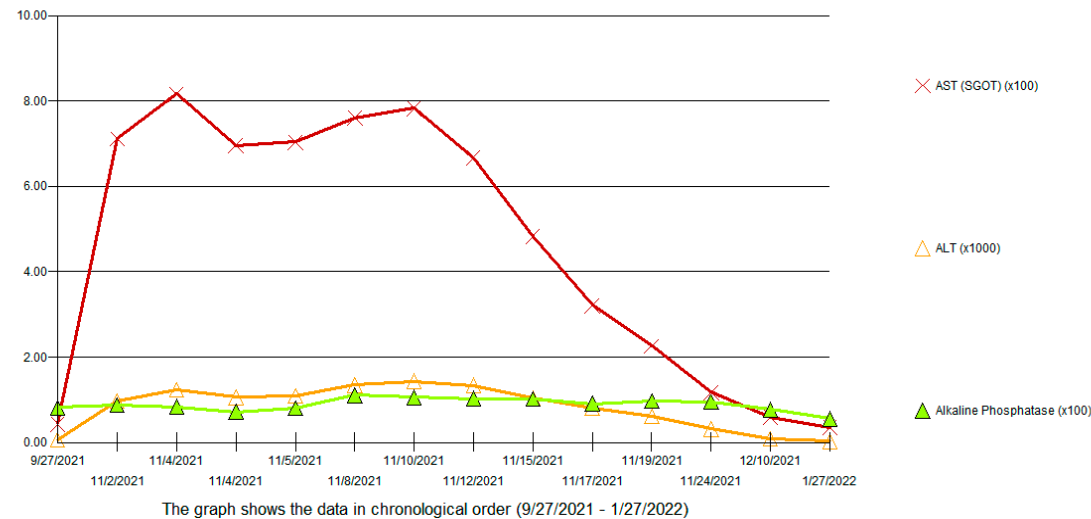
We report a case of drug-induced liver injury (DILI) induced by cannabis gummies containing *Corydalis* Rhizome.

## Case Presentation

A 37-year-old female presented to her primary care clinic with recurrent fevers, night sweats, and myalgias for 7 weeks accompanied by eye redness, brain fog, headache, nausea, and abdominal pain. She denied rashes, tick-bites, cough, dyspnea, chest pain, joint swelling, or genitourinary symptoms. Past medical history was notable for IBS, migraines, and anxiety. She reported edible marijuana use four times a week, rare alcohol use, and denied tobacco use. She denied a family history of liver disease.

Physical exam was notable for tachycardia to 110 and scleral injection with the remainder of vitals and exam unremarkable. Initial labs were notable for AST 61, ALT 44 and CRP of 12. CBC, BMP, urinalysis, ESR, blood cultures, blood smear for parasite screen, tests for Lyme disease, Babesia, Tularemia, Anaplasma, Ehrlichia, Rickettsia, EBV, HIV, RPR, ANA, CMV, parvovirus B19, and chest x-ray were all negative. The patient was referred to infectious disease with further testing for West Nile, Leptospira, lymphocytic choriomeningitis virus, and COVID-19 returning negative. Repeat LFTs showed worsening transaminitis with ALT 979 and AST 712, alkaline phosphatase 88, total bilirubin 0.7, and albumin 4.9.

Figure 1: Patient's serial LFTs depicted over time



## Case Presentation

Hepatitis workup including hepatitis A, B, and C, HSV, EBV, VZV serologies, AMA, ASMA, antiLKM Ab, acetaminophen level, INR, iron panel, CPK, TSH, and abdominal ultrasound were all normal. It was later discovered that her marijuana gummies contained *Corydalis* rhizome extract known to be hepatotoxic. Cessation of this drug was strongly advised. She was discharged with hepatology follow-up and underwent a liver biopsy showing patchy periportal and lobular inflammation with extension across the limiting plate, hepatocyte injury and apoptosis, and increased lipofuscin for age compatible with mild to moderate hepatitis. She had complete recovery after cessation of *Corydalis*-containing gummies.

## Discussion

Our patient consumed '1906 Midnight', an American cannabis brand containing *Corydalis* rhizopus 100 mg, advertised to improve sleep, pain, and have a liver protective effect. A Korean systematic review on herbal-induced liver injury reported that *Corydalis* was the 3rd most frequent causative herb, with 36 cases. There are no American-based publications reported on DILI from *Corydalis*.

## Advertisement of the marijuana gummy on the website

EXPERIENCE MIDNIGHT  
A highly targeted blend of sleep-inducing plant medicines and relaxing cannabis to promote restful nights.

**HOW IT WORKS:**  
Midnight's key ingredient, Stephania, helps you fall asleep because of its sedative properties, and it helps you stay asleep because it targets body pain and tension, including acute, inflammatory, and neuropathic pain.

\*This product contains Stephania. Stephania may cause serious health problems in rare cases and should be taken in consultation with a physician. Do not take while pregnant or breastfeeding.

**TIP: MIDNIGHT WORKS FAST. WAIT TO TAKE IT UNTIL YOU ARE TRULY READY FOR BED. ONSET IN LESS THAN 20 MINUTES.**



**GREAT FOR:**  
ANYONE STRUGGLING WITH SLEEP  
SLEEPING IN UNFAMILIAR BEDS  
PUTTING THE DAY'S WORRIES TO REST  
A GOOD NIGHT'S SLEEP WITHOUT DEPENDING ON HABIT-FORMING PRESCRIPTIONS

Swallow, don't chew.

BUY MIDNIGHT

