

Aloe Vera – A Boon or Bane.

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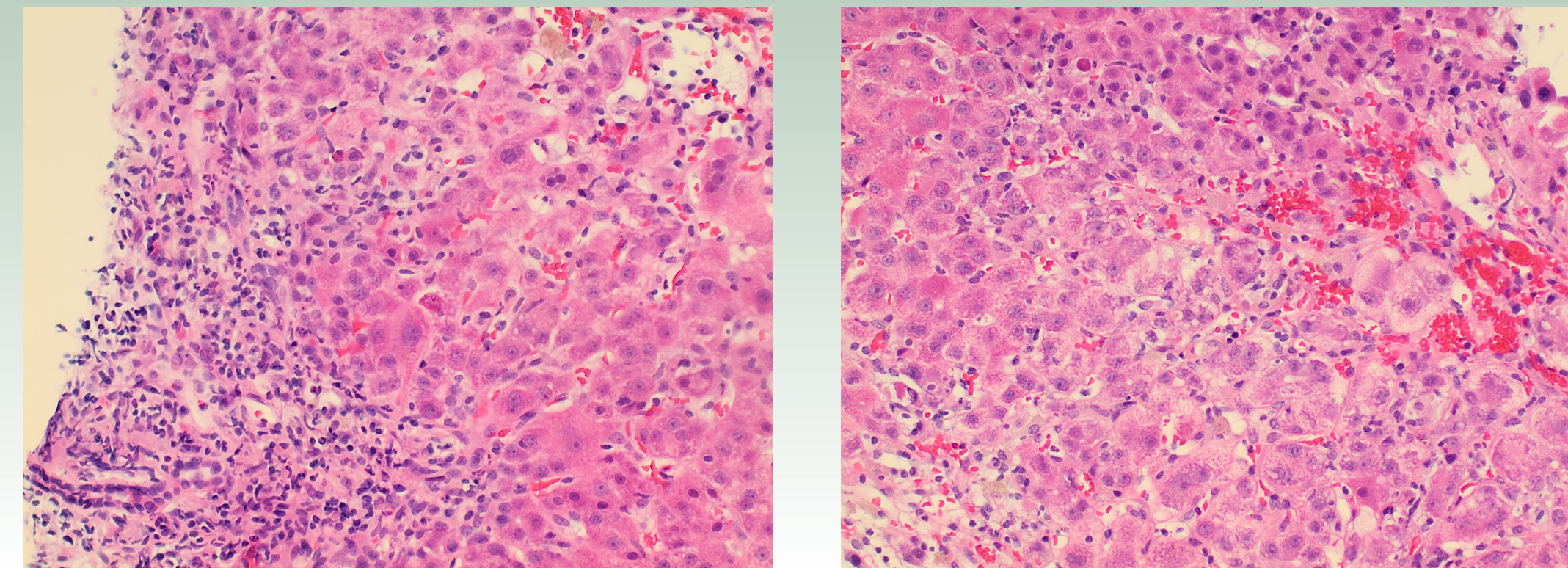
BACKGROUND

Aloe Vera is derived from a cactus-like plant, a member of the Lily family that grows best in arid climates. Aloe Vera products are derived from the leaf and contain over 75 identified substances including anthraquinones, vitamins (A, C, E), enzymes, minerals, sugars, fatty acids, amino acids, salicylic acid and hormones. Aloe has been widely used in phytomedicine and is described as a herb which has anti-inflammatory, anti-proliferative, anti-aging effects.

CASE PRESENTATION

A 54-year-old male with a past medical history of Hashimoto's thyroiditis, Gilbert's syndrome, came to ER with RUQ abdominal pain and was found to have abnormal LFTs. He used to drink 4-5 glasses of wine everyday and quit drinking alcohol 3 months ago. He also reported dark urine and 4 pounds weight loss in the last 4 weeks. He has been taking Aloe Vera supplements for gut motility for the last 4 months. He had prominent scleral icterus and hepatosplenomegaly on exam. Labs showed elevated total bilirubin of 8.1 with predominately conjugated hyperbilirubinemia(5.3) , alkaline phosphatase of 163, elevated transaminases (ALT 2790, AST 1892). Further work up was done which ruled out acetaminophen toxicity, viral and autoimmune hepatitis. Abdominal ultrasound showed hepatic cyst and small amount of sludge in the gallbladder without any evidence of biliary ductal dilation. Liver biopsy showed an acute hepatitis pattern of injury with no fibrosis/cirrhosis.

Hepatotoxicity from Aloe Vera is rare, and most events have been self-limiting upon stopping the herbal supplement.



Liver Biopsy showing moderately active acute hepatitis with no fibrosis



DECISION MAKING

We discontinued Aloe Vera supplements and LFTs started trending down and repeat values after 10 days showed total bilirubin of 3.4, alkaline phosphatase 133, ALT 1308, AST 506. His liver function tests have almost normalized after 1 month.

DISCUSSION

Cases of Aloe Vera-induced toxic hepatitis have been reported since 2005. But its pharmacokinetics and toxicity are poorly described in the literature. There have been 10 cases of hepatotoxicity reported in Switzerland, three in Korea and one in Germany, Turkey and USA. The injury typically arises between 3 and 24 weeks after starting oral Aloe Vera. The typical pattern of injury is hepatocellular, and the clinical course resembles acute viral hepatitis. The presence of immunoallergic and autoimmune features are rare. The injury is rarely severe and fatal cases have not been reported. Hepatotoxicity from Aloe Vera is rare, and most events have been self-limiting upon stopping the herbal supplement. Though a few reported cases have been severe or prolonged, but no instances leading to fatalities, liver transplantation, chronic hepatitis, or vanishing bile duct syndrome. Rechallenge has led to recurrence of injury in at least one published case report and should be avoided. Our case was one of the examples of rare cases of acute toxin induced liver injury secondary to herbal products. Though Aloe Vera has its own benefits, clinicians should discourage patients from using OTC supplements containing this product as the data on the safety is scarce.

REFERENCES

Yang, Ha Na, et al. "Aloe-Induced Toxic Hepatitis." *Journal of Korean Medical Science*, vol. 25, no. 3, Mar. 2010, pp. 492–95. *PubMed Central*, <https://doi.org/10.3346/jkms.2010.25.3.492>.