

## Introduction

Drug-induced liver injury (DILI) is a common cause of hepatotoxicity that has been associated with multiple medications and supplements. Herein, we present an intriguing case of DILI related to preoperative Cefazolin administration.

## Case Presentation

A 64-year-old female with history of breast cancer presented for right upper quadrant abdominal pain, nausea, vomiting, and jaundice for 1 week. The patient underwent left mastectomy with administration of a single dose of preoperative IV Cefazolin about three weeks prior to presentation. On presentation, vital signs were within normal limits. On physical exam, the patient was noticeably jaundiced with right upper quadrant tenderness. Laboratory studies showed total bilirubin 11.9 mg/dL, direct bilirubin 8 mg/dL, alkaline phosphatase 603 IU/L, AST 165 IU/L, ALT 376 IU/L. Abdominal ultrasound found no biliary obstruction. Magnetic resonance cholangiopancreatography noted mild hepatomegaly with no intrahepatic or extrahepatic ductal dilatation.

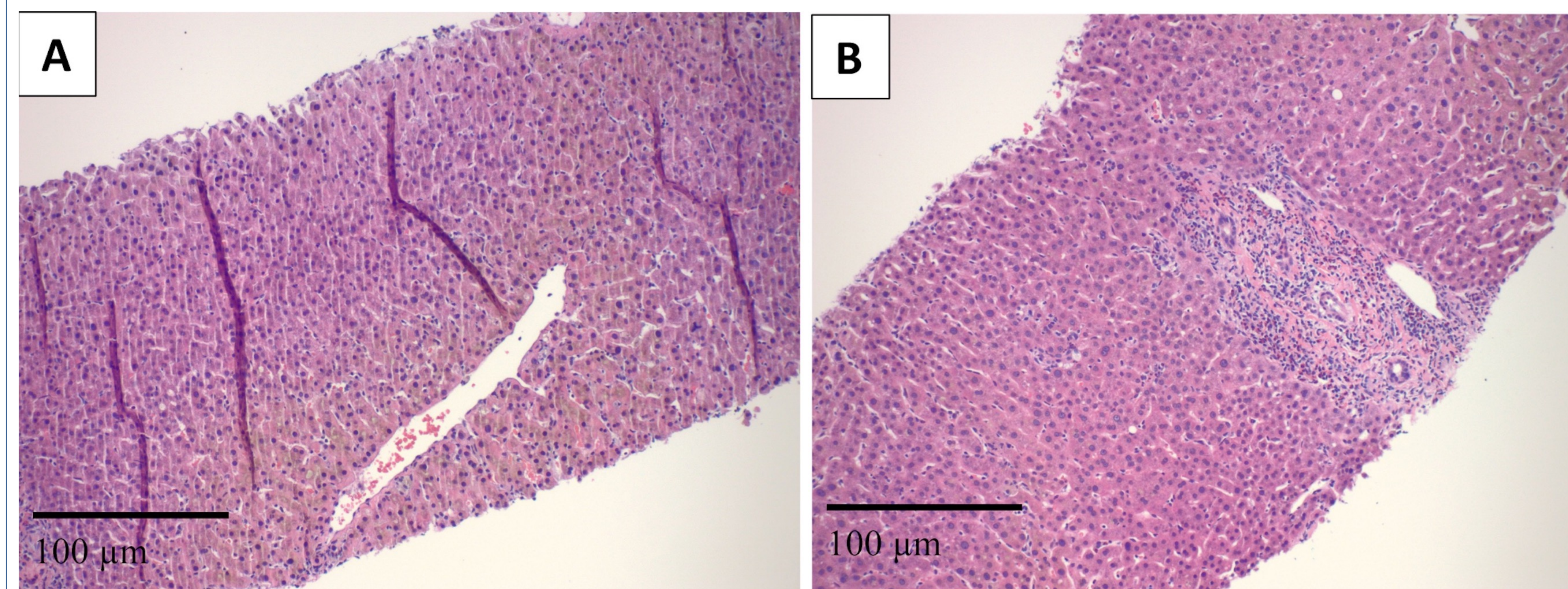
## Case Presentation (cont.)

Workup for autoimmune disease, Wilson disease, and hemochromatosis was negative. Testing for hepatitis A and C was negative. The patient had positive HBcAb, however, HBsAg, HBsAb, and quantitative DNA PCR were negative. Liver biopsy showed cholestatic hepatitis, no significant fibrosis, and prominent eosinophils consistent with DILI. The patient was diagnosed with DILI secondary to Cefazolin administration. She was ultimately discharged home with improvement of symptoms and repeat lab work showing normalization of liver chemistries.

## Discussion

Cefazolin is an antibiotic that is widely used for surgical prophylaxis, and it can be overlooked when working up acute liver injury, as it is usually a one-time dose. According to LiverTox, the latency period between administration and onset of liver injury is typically 1-4 weeks with most cases causing mild elevations of liver enzymes, however, significant elevations in aminotransferases greater than 5 times the upper limit of normal are rare (< 1%). Hepatotoxicity is likely due to hypersensitivity with primarily cholestatic patterns of liver enzymes, but mixed and hepatocellular patterns have been described.

Our patient displayed a mixed pattern after one dose of Cefazolin, and eosinophils were present on biopsy consistent with hypersensitivity. This case highlights the importance of thoroughly reviewing a patient's history to help diagnose potential causes of liver injury, especially DILI, as it is imperative to the definitive management.



**Figure A.** H&E stain (high power) showing intrahepatic cholestasis.

**Figure B.** H&E stain (high power) showing portal inflammation with prominent eosinophils