

A Case of Propofol-Induced Acute Liver Failure

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INTRODUCTION

Propofol is a parenteral anesthetic routinely used for procedures given its beneficial pharmacokinetic profile of rapid onset of action and reversal. Propofol drug toxicity is rare but has been associated with idiosyncratic acute liver injury in a small number of cases.¹

We present a case of propofol-induced acute liver failure (ALF) occurring in a patient after an endoscopic procedure.

CASE REPORT

An 88-year-old male presenting with melena and concern for gastrointestinal bleed. Medical history is notable for Barrett's esophagus, atrial fibrillation, and aortic valve replacement.

He underwent an upper endoscopy with propofol used as the anesthetic agent. The patient tolerated the endoscopy well with no hemodynamic compromise during or afterwards. No source of bleeding was identified so the plan was to proceed with a colonoscopy the next day. Shortly after the procedure, he was noted to have altered mental status.

CASE REPORT (Continued)

	Initial labs	Labs post EGD
AST (IU/L)	35	3248
ALT (IU/L)	24	2411

Further evaluation with routine laboratory testing revealed elevated AST and ALT, both increased from initial lab values. He was also found to have high anion gap metabolic acidosis and bicarbonate level less than 9 mEq/L. His altered mentation continued to worsen, and he became hemodynamically unstable requiring transfer to the intensive care unit.

He had no history of liver disease or excessive alcohol use, no risk factors for viral hepatitis, and took no medications known to cause liver injury. Work-up was unremarkable for acute and chronic liver disease. Propofol was ultimately surmised as the cause of ALF. Unfortunately, the patient's mental status progressively worsened despite hemodynamic stabilization and normalization of liver enzymes. His family ultimately chose to transition to comfort measures and the patient passed soon after.

DISCUSSION

The incidence of drug-induced liver injury is increasing in developed countries and is a major etiology of ALF, accounting for greater than 50% of cases.² Drug toxicity secondary to an idiosyncratic reaction is unpredictable and occurs infrequently in certain individuals. While propofol is generally considered a safe agent widely used for sedation, propofol-induced acute liver injury is a rare outcome.

To the best of our knowledge, it is reported to have caused five cases of acute hepatitis and one other case of ALF.^{1,2} We report the second case of ALF due to propofol with a lethal outcome. We recommend close monitoring of patients treated with propofol for signs of hepatitis and that ALF due to a drug insult should be considered after common causes have been excluded.

REFERENCES

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