Hypertriglyceridemia Independent Propofol-induced Acute Pancreatitis: A Rare and Unusual Complication

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INTRODUCTION

- Propofol is a widely utilized lipophilic, short-acting sedative anesthetic.
- Common side effects include hypotension, apnea, and rash.
- Acute pancreatitis (AP) is a rare documented complication of propofol administration, most commonly seen in the setting of hypertriglyceridemia (HTG).
- We present a rare case of HTG-independent propofol-induced AP after an elective rhytidectomy.

CASE PRESENTATION

- A 75-year-old woman, former smoker with hypertension and hypothyroidism, presented with four days of worsening mentation, abdominal distention and pain after an outpatient rhytidectomy.
- Vital signs revealed fever of 100.4F and tachycardia to 106 beats/min.
- Physical exam was notable for abdominal distension and epigastric tenderness.
- Leukocytosis of 12,200 mm^3 with 10.4% bandemia, ALP of 143 U/L, serum Ca of 8.9 mg/dL, lipase of 222 U/L, and triglycerides of 111 mg/dL.
- Abdominal ultrasound was unremarkable without evidence of gallstones or biliary dilatation.
- CT Abdomen revealed extensive peripancreatic fat stranding and fluid with homogenous parenchymal enhancement consistent with severe interstitial edematous AP (Figure 1).
- She received IVF, PPI, and pain regimen.
- Her diet was gradually advanced with clinical improved over the next 48 hours with mentation returning to baseline and was discharged home.

IMAGES

Figure 1: CT Abdomen revealing severe interstitial acute pancreatitis

Classification System of Drug-Induced Acute Pancreatitis

Class Ia drugs
At least 1 case report with positive rechallenge, excluding all other causes, such as alcohol, hypertriglyceridemia, gallstones, and other drugs
Class Ib drugs
At least 1 case report with positive rechallenge; however, other causes, such as alcohol, hypertriglyceridemia, gallstones, and other drugs were not ruled out
Class II drugs
At least 4 cases in the literature
Consistent latency (≥75% of cases)
Class III drugs
At least 2 cases in the literature
No consistent latency among cases
No rechallenge
Class IV drugs
Drugs not fitting into the earlier-described classes, single case report published in medical literature, without rechallenge

Figure 2: The Badalov Classification system

DISCUSSION

- AP is responsible for over 230,000 hospitalizations annually in the US, representing a significant burden on healthcare spending.
- Drug-induced AP comprising 0.5-2% of all cases.
- Propofol-induced AP has been sparsely reported in the setting of HTG, though exceedingly rare without this lab abnormality.
- The Badalov classification system differentiates association and causality of drug-induced AP by evaluating latency, rechallenge, and published evidence (Figure 2).
- Within this system, propofol has traditionally been characterized as a class II drug.
- Recent published evidence has shown recurrence of AP upon propofol rechallenge, suggesting a more casual relation and a reclassification to class Ib.

CONCLUSION

- We present this case to raise awareness of the possible complications of propofol administration.

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