

Case of Recurrent Hypertriglyceridemia-Induced Pancreatitis in the Setting of Comorbid Alcohol Use Disorder

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INTRODUCTION

- Hypertriglyceridemia-induced pancreatitis (HTGP) is a rare but serious subtype of acute pancreatitis, accounting for 1-7% of all cases [3].
- The mechanism by which hypertriglyceridemia causes pancreatitis is not fully understood but is believed to be related to the lipotoxicity of triglyceride hydrolysis breakdown products causing pancreatic cellular injury and inflammation [4].
- Patients with HTGP often present with symptoms indistinguishable from other causes of acute pancreatitis. However, early diagnosis and management is critical for these patients, because HTGP is associated with increased risk of complications including pancreatic necrosis, sepsis, and multi-organ failure [4].

CASE REPORT

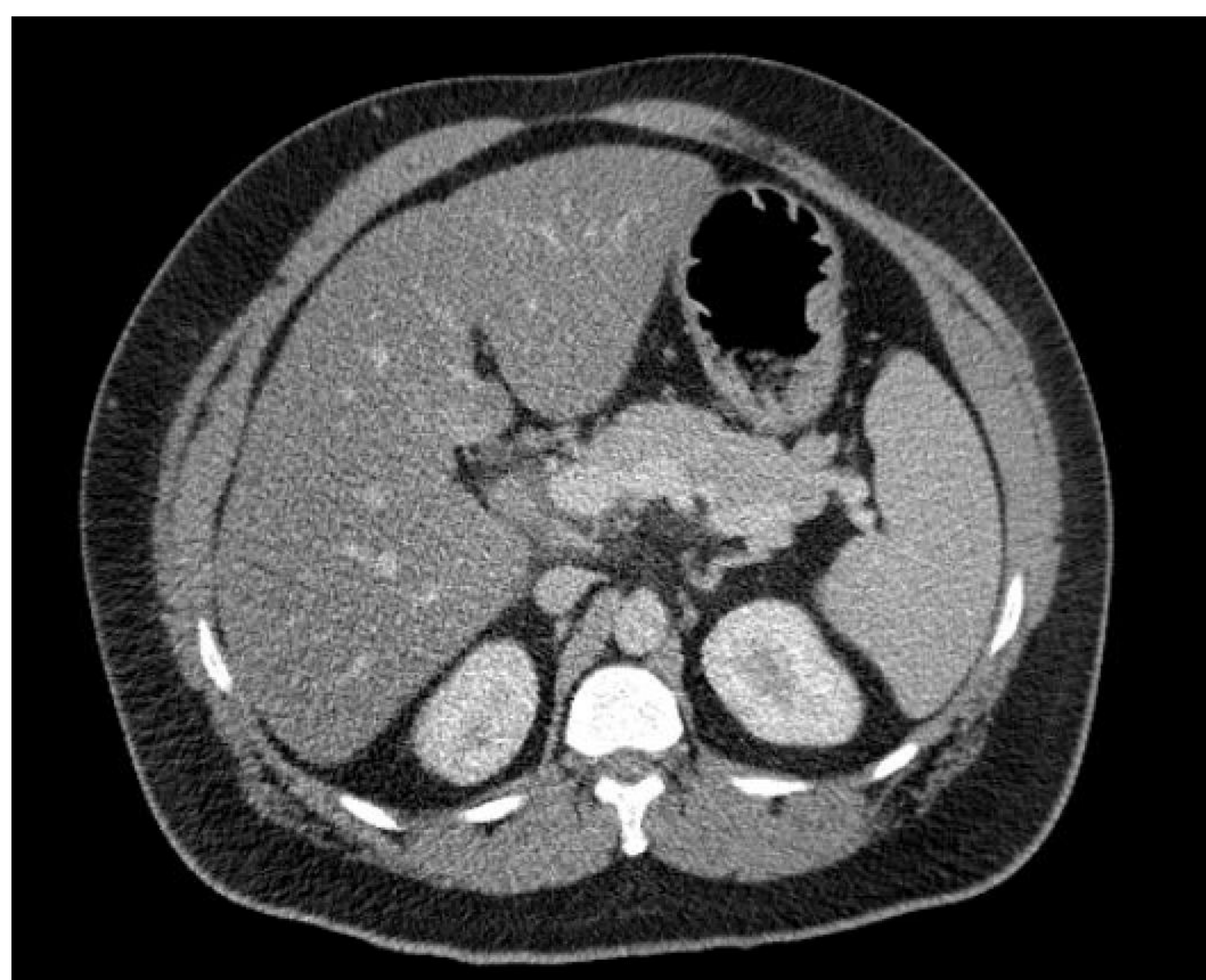
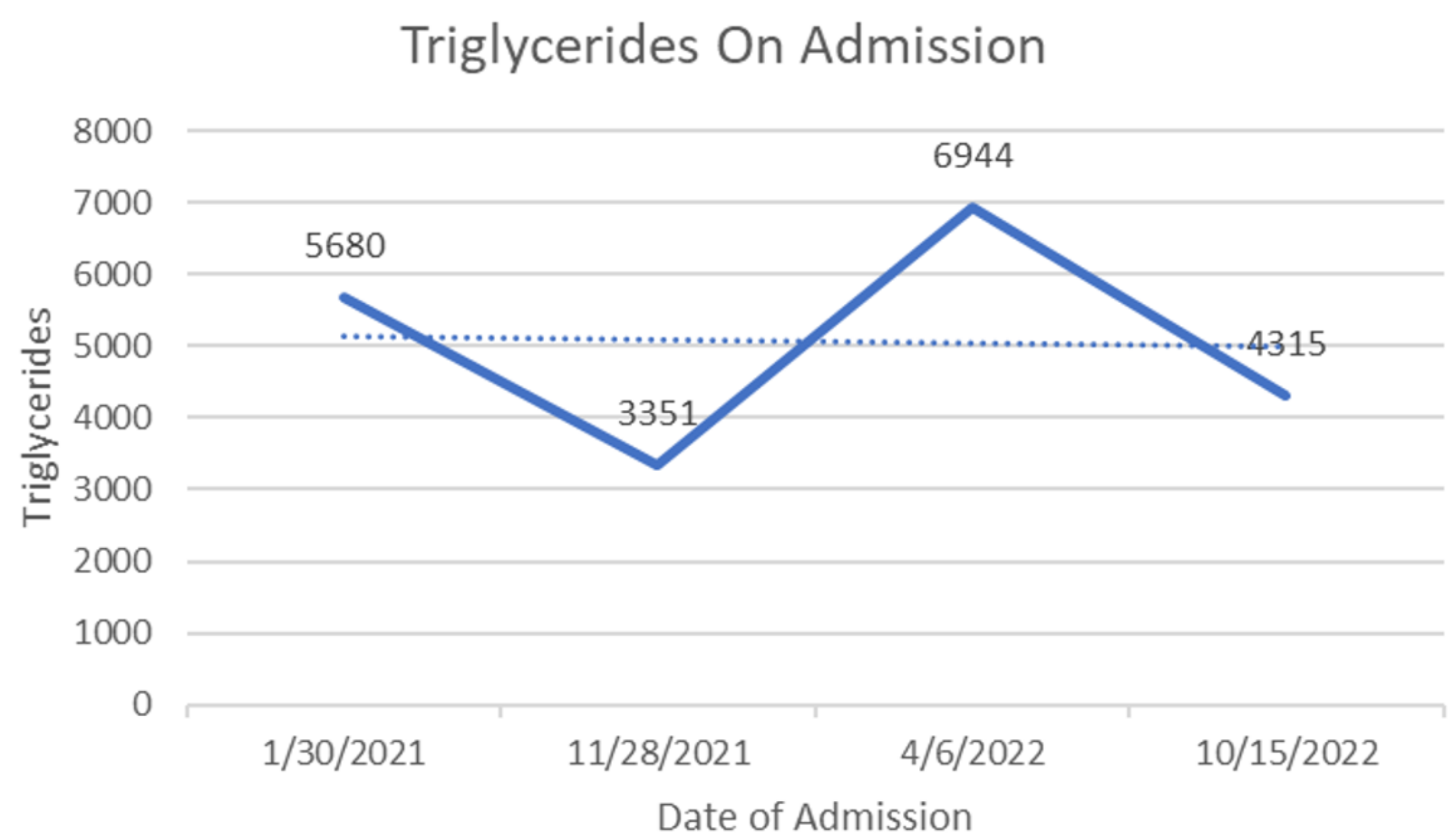
- 45-year-old male who presented with complaints of upper abdominal pain radiating to the back, and nausea.
- Past medical history was significant for recurrent pancreatitis with 3 episodes in the past year, alcohol use disorder, and severe hypertriglyceridemia (HTG). Patient stopped drinking alcohol 7 months prior after an episode of pancreatitis.
- Patient has a history of poor follow up and noncompliance with home meds. Home HTG regimen included fenofibrate 160 mg daily, rosuvastatin 40 mg daily, ezetimibe 10 mg daily, and omega-3 fatty acids 4000 mg daily.

Physical Exam

- On initial exam, the patient was diaphoretic and tachycardic with abdominal distention, guarding, and diffuse tenderness to palpation. Other vitals were unremarkable.

Lab and Radiology Studies

Labs on admission	
Lipase	209
AST	50
ALT	104
POC glucose	262
Ethanol	< 10
Total cholesterol	550
HDL	16
LDL	Unable to calculate
Triglycerides	4315



CT abdomen & pelvis w/ contrast showing peripancreatic inflammatory changes consistent with acute pancreatitis

Patient Course

- Treatment plan included pain control with acetaminophen and morphine, rehydration with D5 LR at 150 ml/hr, IV insulin drip at 10 units/hr, and resumption of home HTG regimen.
- Patient improved symptomatically, and triglycerides trended into the 500s.
- At discharge, the patient was extensively counseled regarding the importance of compliance with home HTG regimen and recommended to follow up with cardiology for possible initiation of PCSK-9 inhibitor.
- Patient was also encouraged to pursue genetic testing for familial dyslipidemia.
- Unfortunately, the patient has not followed up in the outpatient setting and attempts to reach out have been unanswered.

DISCUSSION

- This case report describes the challenging and unique case of a 45-year-old male with recurrent hypertriglyceridemia-induced pancreatitis. Despite complete alcohol cessation, several recent hospitalizations, and an aggressive treatment regimen prescribed at each discharge, the patient continued to experience recurrence of this life-threatening condition.
- Medical noncompliance was arguably the greatest contributing factor to his recurrent disease, and represents the greatest challenge faced during this patient's hospitalization. This case highlights the importance of educating patients on the life-threatening consequences of their medical noncompliance. The patient's willingness to abstain from alcohol was a major achievement for his treatment plan and is evidence that the patient is capable of making positive change. This patient struggles with integrating oral medications into his daily routine, and thus would be an excellent candidate for injectable PCSK-9 therapy should he test positive for familial dyslipidemia.
- This case is not only unique because of the patient's impressive level of serum triglycerides, but also because of the patient's comorbid alcohol use disorder, and possible familial dyslipidemia as a contributing factor. A dive into the medical literature does not reveal anything about this combination of disorders. In fact, most case reports and studies seek to separate these causes out. One review article states "In many settings, determining the exact etiology of pancreatitis may be complicated by the role of ethanol in precipitating severe hypertriglyceridemia." [2] This case is an excellent example of the struggles faced in modern medicine, with patients with multiple comorbidities.
- Another case review of 716 hypertriglyceridemia-associated cases of acute pancreatitis stated that about 43.6% of the cases were associated with some other etiology, including alcohol and gallstones [1]. While the acute aspect of this case is due to hypertriglyceridemia, given his recent alcohol abstinence, it is difficult to determine in the previous instances of acute pancreatitis if one or both causes is at play.

CONCLUSION

- Early diagnosis and treatment of HTGP is crucial, as these patients are at increased risk for recurrence, complications, and adverse outcomes.
- Factors such as alcohol use disorder and familial dyslipidemias can complicate the management of HTGP. Therefore, a comprehensive treatment approach that considers the unique circumstances of each patient is essential.
- Medical noncompliance was identified as a significant contributing factor to this patient's recurrent HTGP. Healthcare providers should prioritize patient education and closely monitor patients to ensure adherence to prescribed therapies.

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