

SEVERE MEDICATIONAL PANCREATITIS IN A YOUNG PATIENT DUE TO PSYCHOACTIVE SUBSTANCE ABUSE

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Abstract: Acute pancreatitis is an inflammatory condition of the pancreas caused by several etiologies, the main ones being gallstones and alcohol abuse. The drug cause is rare, corresponding to less than 5% of cases, usually accompanied by a good prognosis and low mortality. The reported case, however, shows a male patient, 37 years old, with a history of psychoactive substance abuse, in a severe presentation of the disease, evolving with an unfavorable and unusual outcome. Therefore, despite being an infrequent etiology, drug-induced pancreatitis must not be underestimated due to the potential risk of an unfavorable outcome, with early diagnosis and preventive measures being essential to prevent its occurrence.

Keywords: Acute pancreatitis. Drug pancreatitis. Psychoactive substances.

INTRODUCTION

Acute pancreatitis is an inflammatory condition of the pancreas caused by several etiologies, the main ones being gallstones and alcohol abuse. The drug cause is rare, corresponding to less than 5% of cases, usually accompanied by a good prognosis and low mortality (SPANIER, 2011). The disease can present itself in a mild form, in which it is not accompanied by organ dysfunction or complications; moderate, in which there is a transient organic dysfunction, lasting up to 48 hours, followed or not by local or systemic complications; and severe form, which manifests itself with a permanent dysfunction that succeeds the dysfunction of multiple organs (BANKS, 2013). The classic clinical manifestation consists of sudden and persistent abdominal pain, in the topography of the upper quadrant of the abdomen, greater in the epigastric region and in the right hypochondrium. In 50% of patients, the pain may radiate to the back. Some symptoms are commonly associated with the condition,

such as hyporexia, persistent nausea and vomiting. However, a small portion of patients (less than 10%) may be asymptomatic (VEGE, 2022). Some findings in the clinical examination may increase the suspicion of the disease, such as the presence of abdominal distention, involuntary muscle rigidity and reduced bowel sounds, secondary to adjacent inflammation of the intestinal loops. Toxic signs such as fever, tachypnea and hypotension may be present in more severe presentations. In addition, the presence of jaundice may suggest the etiology of the condition, since it is a consequence of obstruction at the common bile duct (SWAROOP, 2004). The diagnosis of acute pancreatitis is established with the presence of at least 2 of the 3 criteria:

OBJECTIVE

The objective of this report is to signal the potential severity that the drug etiology can reach in cases of acute pancreatitis and that, in some scenarios, discontinuing the drugs alone is not enough to reverse established complications.

CASE REPORT

Patient, male, 37 years old, nurse, without comorbidities, made prolonged use of psychoactive substances aiming at weight loss and high performance. He self-medicated for 2 years with Semaglutide, Topiramate, Duloxetine, Lisdexamfetamine, and Naltrexone, evolving with episodes of abdominal pain, nausea and vomiting. He was diagnosed with severe pancreatitis and admitted to intensive care with 70% of pancreatic necrosis and retroperitoneal abscess. The patient had been abstaining from alcohol for 2 years, and etiologies such as hypertriglyceridemia, bile, alcohol and autoimmune disorders were ruled out. During the 116 days of hospitalization, several surgical interventions were performed: Step-

up approach with radiointervention; three lumbotomies with drainage of retroperitoneal abscess and pancreatic necrosectomy using thoracic drains in lumbar topographies and, later, they were exchanged for Blake drains, due to the need for a device with high suction pressure capable of venting the high volume of secretions and finally, an exploratory laparotomy for alternative access to the pancreatic space. Throughout the hospitalization, he continued to use multiple invasive devices that were the focus of colonization, multidrug-resistant bacterial and fungal infections, exhausting the existing antimicrobial options and consequently presenting refractory hyperthermia. Given this scenario, the patient gradually deteriorated, evolving to death seven days after the implementation of full palliative care. an exploratory laparotomy for alternative access to the pancreatic pocket. Throughout the hospitalization, he continued to use multiple invasive devices that were the focus of colonization, multidrug-resistant bacterial and fungal infections, exhausting the existing antimicrobial options and consequently presenting refractory hyperthermia. Given this scenario, the patient gradually deteriorated, evolving to death seven days after the implementation of full palliative care. an exploratory laparotomy for alternative access to the pancreatic pocket. Throughout the hospitalization, he continued to use multiple invasive devices that were the focus of colonization, multidrug-resistant bacterial and fungal infections, exhausting the existing antimicrobial options and consequently presenting refractory hyperthermia. Given this scenario, the patient gradually deteriorated, evolving to death seven days after the implementation of full palliative care.

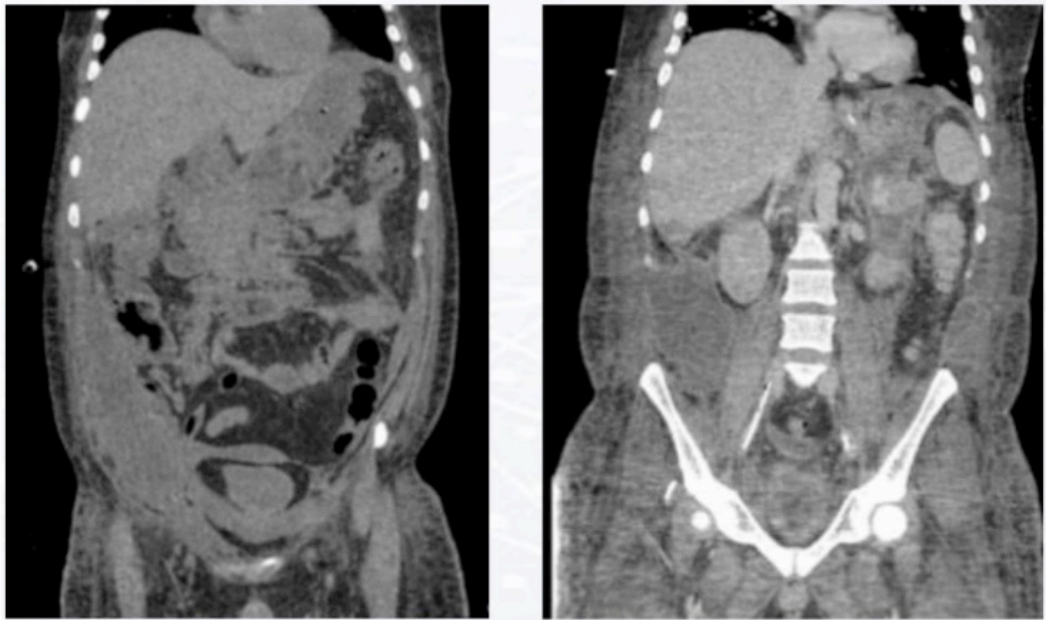


Figure 1. Computed tomography of the abdomen in coronal section showing retroperitoneal collection.

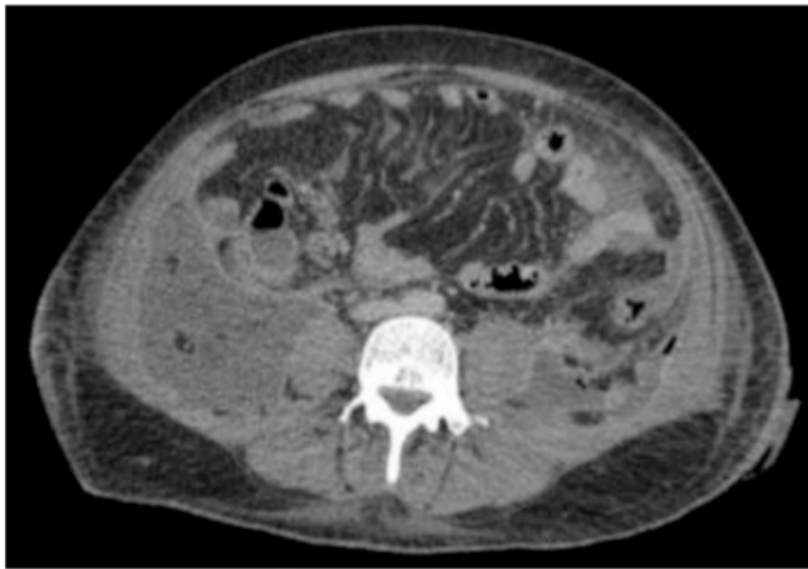


Figure 2. Computed tomography of the abdomen in an axial section showing a retroperitoneal collection.

DISCUSSION

Drug-induced pancreatitis is an uncommon etiology, usually with a benign and self-limiting course. This subtype is classified from I to IV, according to the numbers of associations between potentially harmful drugs and the disease, which take into account the reported medical cases, the appropriate latency period and the adverse reaction with the reintroduction of the drug. Medications included in class I and II have a greater potential to trigger the disease (WOLFE, 2020). Some of the pathophysiological mechanisms that justify drug-induced lesions are immunological reactions (sulfonamides and aminosaliculates), direct toxic effect (diuretics), accumulation of harmful metabolites (valproic acid, tetracyclines), ischemia (azathioprine), intravascular thrombosis (estrogen) and increased of the viscosity of the pancreatic juice (steroids) (SIMONS-LINEARES, 2019). Among the medications used by the patient in the reported case, there is a correlation in the literature between amphetamines as probable inducers of pancreatic ischemia, due to a vasoconstrictor effect at the local level, with its chronic use being a predictor of hemorrhagic necrosis of the pancreatic parenchyma. Another drug with harmful potential is naltrexone, which brings pancreatitis as one of the potential side effects in its medical package insert, with its mechanism of injury being uncertain (MACAIGNE, 2020). Depending on the mechanism, clinical presentation may be early or late. The diagnosis must only be presumed after ruling out the main etiologies. The treatment aims at the immediate discontinuation of the drug, supportive measures and management of complications. a correlation is found in the literature between amphetamines as probable inducers of pancreatic ischemia, due to a vasoconstrictor effect at the local level, with its chronic use

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CONCLUSION

The reported case shows that, despite being an infrequent etiology, drug-induced pancreatitis must not be underestimated due to the potential risk of an unfavorable outcome, with early diagnosis and preventive measures being essential to prevent its occurrence.

REFERENCES

1. Badalov N. *et al.* **Drug-Induced Acute Pancreatitis: An Evidence-Based Review.** Clin Gastroenterol Hepatol 2007; 5:648.
2. Banks P. A. *et al.* **Classification of acute pancreatitis, 2012: revision of the Atlanta classification and definitions by international consensus.** Gut 2013; 62:102.
3. Banks P. A. Freeman M. L. Practice Parameters Committee of the American College of Gastroenterology. **Practice guidelines in acute pancreatitis.** Am J Gastroenterol 2006; 101:2379.
4. Macaigne G. **Amphetamine use Associated with Acute Pancreatitis.** J. Gastroenterology Pancreatology and Hepatobiliary Disorders, 2020. DOI: 10.31579/2641-5194/013.
5. Simons-Linares C. R. *et al.* **Drug-Induced Acute Pancreatitis in Adults: An Update.** Pancreas 2019; 48:1263.
6. Spanier B. W. *et al.* **Acute pancreatitis and concomitant use of pancreatitis-associated drugs.** Am J Gastroenterol 2011; 106:2183.
7. Swaroop V. S. *et al.* **Severe acute pancreatitis.** JAMA 2004; 291:2865.
8. Vege S. S. **Clinical manifestations and diagnosis of accurate pancreatitis.** UpToDate, 2022.
9. Wolfe D. *et al.* **Drug induced pancreatitis: A systematic review of case reports to determine potential drug associations.** PLoS One 2020; 15:e0231883.