International Journal of Health Science

ISSN 2764-0159 vol. 5, n. 33, 2025

ARTICLE

Acceptance date: 28/10/2025

CASE REPORT: ACUTE NECROTIZING PANCREATITIS REQUIRING PERCUTANEOUS DRAINAGE

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Abstract: This report describes a case of moderately severe acute biliary pancreatitis (Balthazar E) in a 50-year-old male patient with peripancreatic collections and partial pancreatic necrosis. A minimally invasive approach was chosen, according to the *step-up approach*, requiring surgical drainage. The patient showed progressive clinical and laboratory improvement, without the need for re-treatment or other interventions. The case reinforces the effectiveness of image-guided minimally invasive techniques in the treatment of complications of acute necrotizing pancreatitis.

Keywords: Acute necrotizing pancreatitis; Surgical drainage; Minimally invasive procedures; Therapy.

Introduction

Acute pancreatitis (AP) is an inflammatory condition of the pancreatic parenchyma. Its main etiologies are biliary origin and chronic alcoholism, accounting for more than 70% of cases.

In this study, two of the main severity classifications were used: the Atlanta Classification and the Balthazar Tomographic Index.

Currently, the most conservative therapeutic approach has shown good outcomes for the treatment of PA, using the "Step Up Approach," which is based on minimally invasive techniques (MIT). This approach was used to treat the patient mentioned in this report.

Discussion

Acute biliary pancreatitis is the main etiology of necrotizing pancreatitis in adults, accounting for up to 50% of severe cases.

In this report, patient V.R.L., 50 years old, presented with a recurrent episode of moderately severe biliary pancreatitis (Balthazar E). Peripancreatic collection was observed on imaging tests, later evolving into a pseudocyst.

The management of necrotizing pancreatitis has undergone changes since the publication of the PANTER trial (van Santvoort et al., NEJM 2010), which compared early open necrosectomy with *the step-up* approach—a strategy based on percutaneous drainage, followed by minimally invasive necrosectomy only if clinically refractory. This trial demonstrated a significant reduction in serious complications (40% → 12%) and less pancreatic insufficiency.

The present case follows the same rationale: intensive initial clinical control, followed by percutaneous drainage, which resulted in progressive improvement without the need for surgical necrosectomy.

Targeted drainage reduces bacterial translocation, improves pancreatic perfusion, and preserves exocrine function.

Thus, the favorable evolution of V.R.L., without the need for necrosectomy, illustrates in a practical way the benefits of *the step-up approach* and reinforces the trend toward prioritizing minimally invasive image-guided tactics.

Case report

Patient V.R.L., male, 50 years old, with a history of previous hospitalization in the same service for moderately severe acute pancreatitis (Balthazar D), was discharged from the hospital after clinical improvement.

Nine days later, he returned with a new episode of epigastric pain, associated with fever for three days. No other complaints.

On physical examination, he presented with a distended abdomen and pain on palpation in the epigastrium and right hypochondrium, with no signs of peritoneal irritation.

Addictions: Chronic smoker and alcoholic.

Follow-up abdominal CT scans revealed: Pancreas with preserved dimensions and undefined contours, densification of adjacent fat, and voluminous peripancreatic collections extending to subhepatic regions and parietocolic leaks parietocolic regions.

Gallbladder with slight parietal thickening and perivesicular edema, suggestive of calculous cholecystopathy.

A new CT scan showed progressive worsening compared to previous scans, with an increase in collections. There was evidence of an increase in the right hepatic supracapsular collection and voluminous peripancreatic collections, which reached subhepatic regions and parietocolic leaks of approximately 890 cm^3.

It presented heterogeneous pancreatic parenchyma, with an area of approximately 30% necrosis, consistent with acute pancreatitis Balthazar E.

Given the worsening clinical and radiological evolution, minimally invasive surgery was indicated, with the removal of approximately 1 liter of seropurulent secretion. In

Postoperatively, progressive clinical improvement was observed, accompanied by a reduction in inflammatory markers, without the need for further surgical procedures.

Subsequent CT scans showed a significant reduction in peripancreatic collections, evidencing improvement in the inflammatory process.

Conclusion

The case presented reinforces the effectiveness of the step-up approach in the treatment of complicated acute biliary pancreatitis.

Image-guided percutaneous drainage proved effective in controlling the inflammatory process and regressing the collections.

Thus, this case illustrates the importance of individualized therapy according to the evolutionary phase of the disease and the patient's clinical criteria.

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