

# Mild acute pancreatitis with reactive appendicitis and ascariasis. A case report

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## Case Report

General Surgery



**Background:** The coexistence of acute pancreatitis with reactive appendicitis and intestinal parasitosis is extremely rare and can complicate the differential diagnosis of acute abdomen.

**Case Report:** A previously healthy 25-year-old female presented with generalized colicky abdominal pain, worsened by food intake, and accompanied by nausea, vomiting, and non-quantified fever. Physical examination revealed right iliac fossa tenderness without signs of peritoneal irritation. Subsequently, she vomited a parasite compatible with *Ascaris lumbricoides*. Laboratory tests showed leukocytosis (13,940/ $\mu$ L), amylase 2,735 U/L, and lipase 3,000 U/L. Abdominal ultrasound revealed findings consistent with appendicitis. A diagnosis of mild acute pancreatitis with reactive appendicitis and ascariasis was established. The patient was managed conservatively with intravenous fluids, ceftriaxone, and albendazole, with a favorable clinical outcome.

**Discussion:** Reactive appendicitis can occur secondary to systemic inflammation or intra-abdominal infections, such as pancreatitis. Ascariasis, common in endemic regions, may exacerbate the inflammatory response or partially obstruct the appendiceal lumen. Medical management may be sufficient in selected cases.

**Conclusion:** This case highlights the importance of considering secondary diagnoses and infectious or parasitic etiologies in patients presenting with abdominal pain, especially in endemic areas.

**Keywords:** acute pancreatitis, Valentino's syndrome, reactive appendicitis, ascariasis, *Ascaris lumbricoides*, acute abdominal pain

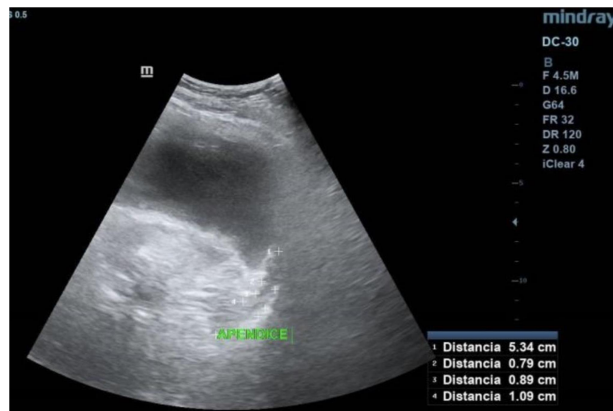
Abdominal pain is one of the most common reasons for medical consultation and represents a diagnostic challenge, particularly when multiple etiologies may mimic surgical conditions. Acute appendicitis is the leading cause of acute abdomen requiring surgery worldwide. However, less common forms exist, such as reactive appendicitis, which is an appendiceal inflammation secondary to other abdominal, infectious, or systemic inflammatory processes, and not always associated with direct obstruction or infection of the appendix [1].

Acute pancreatitis is an inflammatory disease of the pancreas with a clinical spectrum ranging from mild, self-limited episodes to severe cases with systemic complications. In certain situations, pancreatitis can trigger an inflammatory response in the right iliac fossa, mimicking appendicitis. This has been described in Valentino's syndrome, originally linked to perforated gastric or duodenal ulcers with retroperitoneal migration of inflammatory fluids [2–4].

On the other hand, intestinal ascariasis is a parasitic infection caused by *Ascaris lumbricoides*, widely prevalent in tropical and subtropical regions, including Latin America. This parasitosis may lead to several abdominal complications, such as intestinal obstruction, pancreatitis, cholangitis, or appendicitis due to appendiceal luminal obstruction, and may also contribute to secondary inflammatory processes [5–7]. The simultaneous occurrence of acute pancreatitis, reactive appendicitis, and intestinal ascariasis is rare and has not been previously reported in the literature, which may hinder the initial diagnostic approach. In this context, it is essential to consider both clinical manifestations and the patient's epidemiological background, especially in endemic areas where the range of gastrointestinal disease etiologies is significantly broader.

This article presents the case of a previously healthy young woman diagnosed with mild acute pancreatitis who developed reactive appendicitis in the setting of *Ascaris lumbricoides* infection. It highlights

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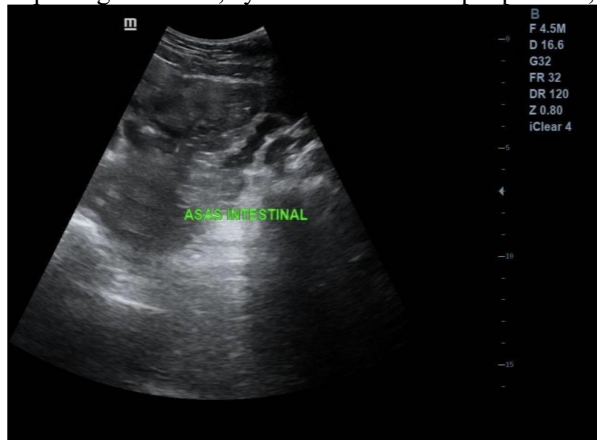
**Figure 1.** Abdominal ultrasonography showing a longitudinal view of the cecal appendix with increased luminal diameter and wall thickening, consistent with appendiceal inflammation

the importance of comprehensive clinical evaluation, accurate interpretation of laboratory and imaging findings, and awareness of uncommon etiologies that may mimic common surgical conditions

### Case report

We report the case of a 25-year-old previously healthy female, with no relevant personal, surgical, or allergic history. She presented to the emergency department on May 16, 2025, with a 48-hour history of generalized colicky abdominal pain, rated 6/10 on the numerical analog scale, which worsened with food intake. The pain was accompanied by nausea, three episodes of gastric vomiting, and one unquantified febrile peak. On physical examination, the patient was hemodynamically stable, afebrile, and had preserved bowel sounds. Deep palpation revealed tenderness in the right iliac fossa, without clear signs of peritoneal irritation. There was no palpable mass or rebound tenderness.

During her stay in the emergency department, the patient had another episode of vomiting, this time expelling a whitish, cylindrical macroscopic parasite,



**Figure 2.** Abdominal ultrasonography showing an isolated intestinal loop with mild wall thickening and preserved peristalsis, without evidence of intraluminal parasites.



**Figure 3.** Abdominal ultrasonography showing a gallbladder without lithiasis or wall thickening, with normal morphology and no pericholecystic fluid.

consistent with *Ascaris lumbricoides*. Laboratory tests were ordered, and symptomatic management was initiated.

Initial laboratory results showed: hemoglobin 13.8 g/dL, hematocrit 42.2%, total leukocytes 13,940/ $\mu$ L with absolute neutrophils 12,230/ $\mu$ L, platelets 160,000/ $\mu$ L, glucose 152 mg/dL, urea 38 mg/dL, creatinine 0.86 mg/dL, uric acid 6.2 mg/dL. Liver function tests revealed total bilirubin 1.61 mg/dL (direct 0.44, indirect 1.17), AST 25 U/L, ALT 17 U/L, alkaline phosphatase 89 U/L, total protein 6 g/dL, albumin 4 g/dL, and GGT 15 U/L. Pancreatic enzymes showed a serum amylase of 2,735 U/L and serum lipase of 3,000 U/L, confirming the diagnosis of mild acute pancreatitis.

An abdominal ultrasound was performed (Figure 1, 2, 3) on May 17, which showed a gallbladder without lithiasis or wall thickening. The pancreas was poorly visualized due to overlying bowel gas; however, the cecal appendix appeared enlarged (5.34 cm in length) with luminal distention and wall thickening, consistent with appendiceal inflammation. No fluid collections or free fluid were noted. There were no signs of perforation or abscesses.

Based on the clinical presentation, ultrasonographic findings, and the expulsion of a macroscopic helminth, a diagnosis was established: mild acute pancreatitis, reactive appendicitis secondary to systemic inflammation, and intestinal ascariasis.

A conservative management approach was adopted, including bowel rest, intravenous hydration at 3 mL/kg/h, antibiotic therapy with ceftriaxone 1 g every 12 hours, and antiparasitic treatment with a single oral dose of albendazole 400 mg. The patient showed favorable clinical evolution, with gradual resolution of abdominal pain and fever. No further episodes of vomiting or signs of complications were observed.

The patient was discharged on May 20, 2025, asymptomatic, with instructions for outpatient follow-

up, parasitological control, and education on preventive measures against food- and waterborne parasitic infections.

## Discussion

This case represents a rare yet clinically significant association between mild acute pancreatitis, reactive appendicitis, and intestinal parasitosis due to *Ascaris lumbricoides*—three conditions with distinct pathophysiological mechanisms that, when coexisting, can mimic urgent surgical scenarios such as acute appendicitis.

Acute pancreatitis is clinically characterized by epigastric pain, elevated amylase/lipase levels, and, in some cases, systemic inflammatory response. The most common causes include gallstones and alcohol consumption, although idiopathic and infectious forms are also reported. In the present case, there was no history of cholelithiasis, dyslipidemia, or alcohol use, leading to a diagnosis of idiopathic mild acute pancreatitis, likely precipitated or worsened by parasitic infection.

Reactive appendicitis refers to secondary inflammation of the appendix in the context of systemic or intra-abdominal inflammatory disease, without direct obstructive cause. This phenomenon has been described in cases of gastroenteritis, inflammatory bowel disease, viral infections, and inflammatory conditions such as pancreatitis [1]. Valentino's syndrome, initially described in relation to posterior gastric or duodenal ulcer perforations with retroperitoneal dissemination, has also been reported in cases involving pancreatic fluid collections or local inflammation migrating toward the right iliac fossa, thus mimicking appendicitis [9–11].

In this context, the migration of inflammatory pancreatic fluid toward the pericecal space could trigger a localized inflammatory response in the appendix, explaining the clinical and sonographic findings observed in this patient. Despite ultrasonographic signs of appendiceal inflammation, the absence of peritoneal irritation and the favorable clinical course without systemic deterioration supported the decision for conservative management.

The presence of intestinal ascariasis, confirmed by spontaneous expulsion of the parasite, added a relevant component to the clinical picture. *Ascaris lumbricoides* is an intestinal nematode capable of migrating through the gastrointestinal tract, causing obstruction, inflammation, or even perforation. Several cases of appendicitis associated with ascariasis have been reported, either due to luminal obstruction or inflammatory reaction [12–14]. In this case, although the parasite was not found within the appendix, its transit through the intestines may have exacerbated

local inflammation, acting as a secondary mechanism in the development of reactive appendicitis.

From a therapeutic standpoint, conservative treatment with intravenous fluids, antibiotics, and antiparasitic agents was sufficient to achieve resolution of the clinical picture, thereby avoiding unnecessary appendectomy. This aligns with recent reports suggesting that selected cases of uncomplicated appendicitis—especially those of reactive etiology—may resolve without surgical intervention when appropriately managed and closely monitored [8,13]. This case underscores the importance of maintaining a broad diagnostic approach in patients presenting with abdominal pain, particularly in endemic areas for parasitic infections. It also highlights the value of integrating clinical, imaging, and laboratory findings to prevent overdiagnosis of surgical appendicitis in contexts where medical management may be curative.

## Conclusion

This clinical case illustrates a rare association between mild acute pancreatitis, reactive appendicitis, and intestinal ascariasis. In endemic regions, it is essential to consider parasitic etiologies in patients presenting with atypical gastrointestinal symptoms or multiple inflammatory foci. Conservative treatment can be effective in selected patients, provided there is close clinical monitoring.

## Conflicts of interests

It is declared that there are no conflicts of interest related to the publication of this work.

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