The use of double-contrast computed axial tomography (CAT) in the diagnosis of ascaris-induced acute pancreatitis

SONIA LIZETH RINCÓN-AMAYA, HARVEY F. BORJA-GUTIÉRREZ,
DAVID ENRIQUE MONTAÑA-MANRIQUE •BOGOTÁ, D.C. (COLOMBIA)

DOI: https://doi.org/10.36104/amc.2022.2240

This was a 35-year-old male of low socioeconomic status with no other significant history. He was admitted to the emergency room for sudden onset severe epigastric pain. On exam, his vital signs were within normal limits, and he had no signs of peritoneal irritation. Acute coronary syndrome and hollow organ perforation were ruled out. Studies showed elevated bilirubin, transaminases, alkaline phosphatase and, especially, amylase. He was diagnosed with acute pancreatitis (AP) with no evidence of multiple organ dysfunction. His studies were completed with an upper abdominal ultrasound showing no cholelithiasis, with collections in both paracolic gutters. A double-contrast computed tomography of the abdomen (abdominal CT) was ordered, which showed acute pancreatitis (Figure 1) and a tubular filling defect towards the duodenal papilla (Figure 2). An upper gastrointestinal endoscopy (EGD) showed a single 25 cm parasite located in the duodenal papilla. After antibiotic coverage and deworming, the patient developed walled-off necrotizing pancreatitis in the fifth week of follow up, requiring a necrosectomy and collection drainage.

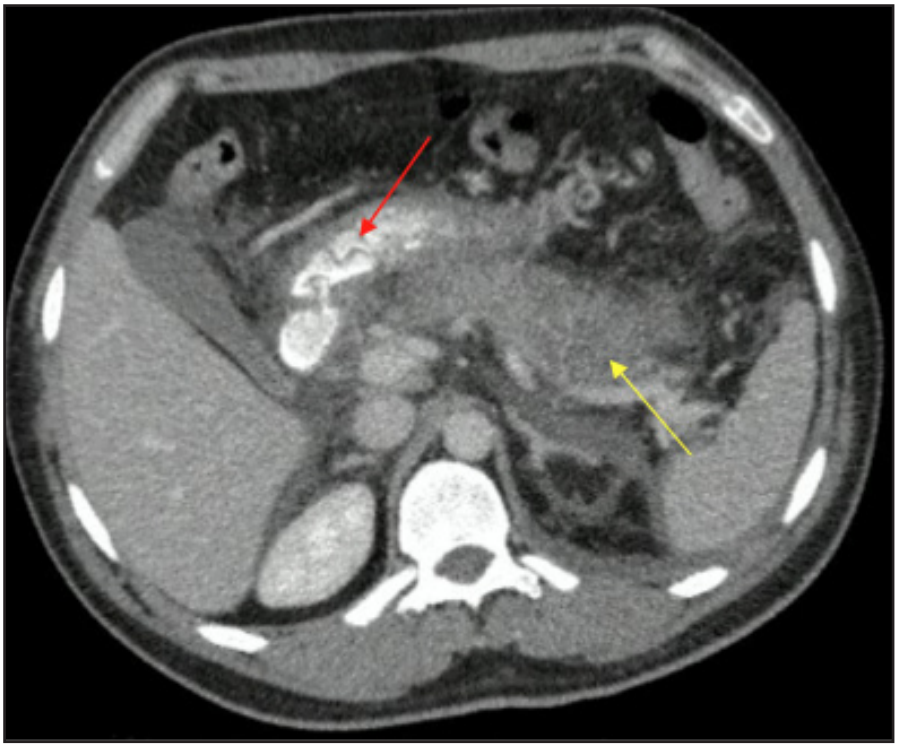

Figure 1. *An axial view of a double-contrast computed tomography of the abdomen showing acute interstitial edematous pancreatitis (yellow pointer), with a tubular shape corresponding to ascaris (red pointere) and non-encapsulated peripancreatic fluid.*

Acute pancreatitis is an inflammatory condition usually caused by gallstones or excessive alcohol consumption. Khuroo et al. reported that 23% of the AP cases in India are caused by ascaris, associating it with poor hygiene conditions (1). The diagnosis is usually clinical, finding ascaris worms in the stool. Occasionally, the ultrasound shows indirect signs such as mobile figures within the hollow gut (2). In this exceptional case, there was no infestation; it was a single parasite, for which the double-contrast abdominal CT was very helpful. A prompt CT in

Dra. Sonia Lizeth Rincón-Amaya: Médico General Servicio de Urgencias Hospital Universitario San Ignacio; Dr. David Enrique Montaña-Manrique: Especialista de Medicina de Urgencias Hospital Universitario San Ignacio; Dr. Harvey F. Borja-Gutiérrez: Residente de Medicina de Urgencias Pontificia Universidad Javeriana. Bogotá, D.C. (Colombia).
Correspondencia. Dra. Sonia Lizeth Rincón-Amaya Bogotá, D.C. (Colombia).
E-Mail: rincon.sonia@javeriana.edu.co
Received: 28/VI/2021 Accepted: 19/X/2021

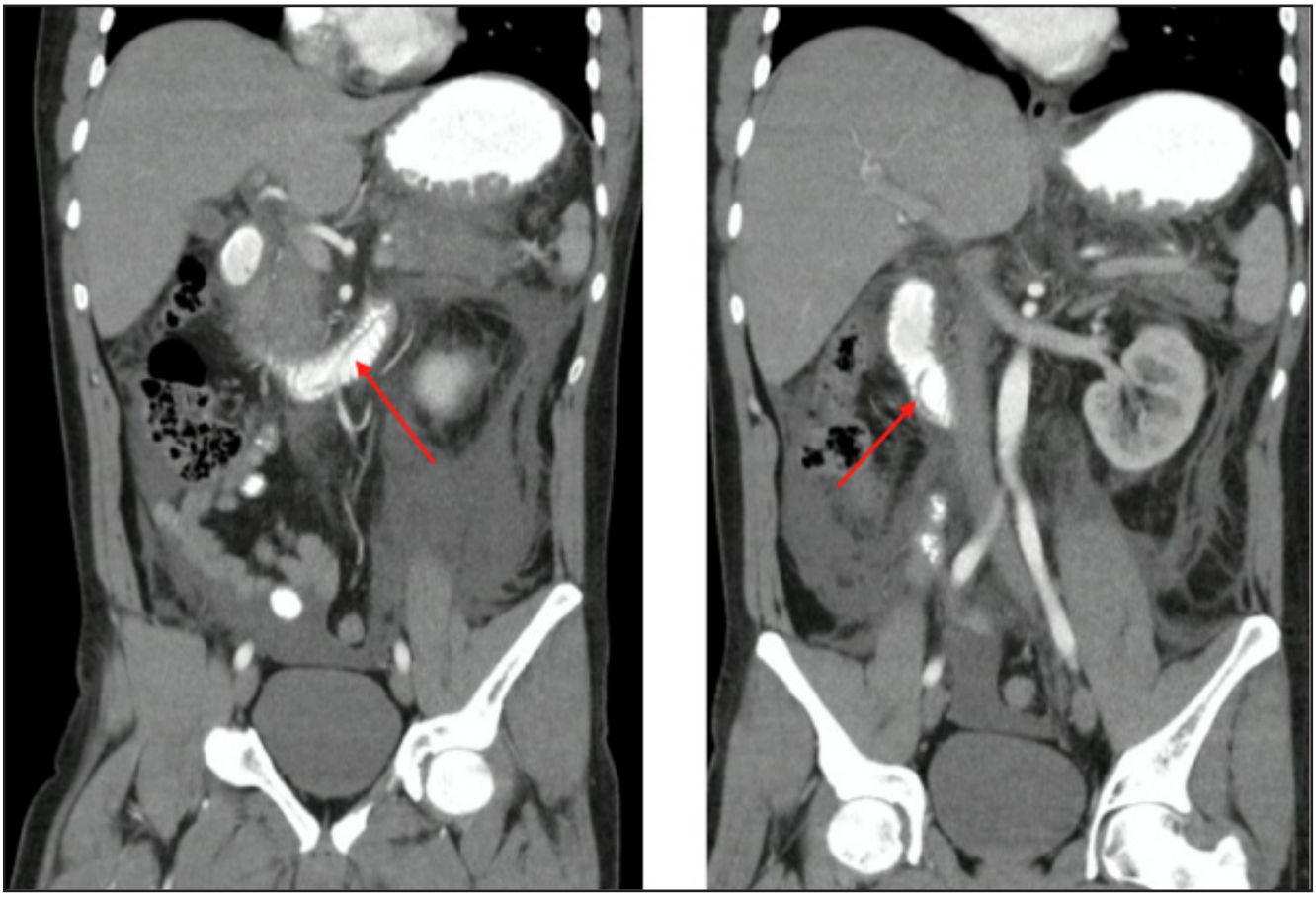

Figure 2. *A coronal view of a double-contrast abdominal tomography showing an ascaris worm in the duodenal papilla, second and third part of the duodenum (red pointer).*

the emergency room can provide the diagnosis or change treatment in close to 15% cases of AP (3).

References

1. **Khuroo MS, Zargar SA, Yattoo GN, Koul P, Khan BA, Dar MY, Alai MS.** Ascaris-induced acute pancreatitis. *Br J Surg*. 1992 Dec;**79(12):**1335-8. doi: 10.1002/bjs.1800791231. PMID: 1486433.
2. **Khuroo MS, Rather AA, Khuroo NS, Khuroo MS.** Hepatobiliary and pancreatic ascariasis. *World Journal of Gastroenterology*. 2016;**22(33):**7507–17.
3. **Lohse, M. R., Ullah, K., Seda, J., Thode, H. C., Jr, Singer, A. J., & Morley, E. J.** The role of emergency department computed tomography in early acute pancreatitis. *The American journal of emergency medicine*. 2021; **48,** 92–95.