

Letters to the Editor

Portal pneumatosis: Sign of alert or casual discovery?

Key words: Portal pneumatosis. Intestinal ischemia. Portal gas.

Dear Editor,

The presence of gas in the portal system is a rare radiological sign, known as portal pneumatosis related to bowel ischemia and a fatal outcome (1). However, there are other causes such as inflammatory bowel disease, infectious, interventional procedures, trauma, etc, that justify this finding with better prognosis (2,3).

Case reports

Case report 1. The first is a 77-year-old male with atrial fibrillation and chronic obstructive airway disease, presented with a history of periumbilical pain of sudden onset and diarrhea. Initial assessment revealed afebrile, soft abdomen, mild abdominal pain in epigastric region without signs of peritoneal irritation, and 18,000/mm³ leukocytes. In ultrasound-CT (Fig. 1), linear multiple images are observed distributed peripherally in relation to intrahepatic gas associated with thickening of the bowel wall, with no free liquid. With the diagnosis of acute gastroenteritis and because of the clinical stability, absence of pathological exploration and suspected inflammatory process, it was decided hospitalization for medical treatment. The patient evolved satisfactorily.

Case report 2. The second case is a 64-year-old male with hypertension, presented with a seven-day history of mesogastric pain, vomiting and diarrhea. Hemodynamically stable, the abdomen is globular, diffusely painful, with discrete peritoneal reaction. Laboratory tests demonstrate leukocytosis (13,700/mm³). A CT

revealed the presence of portal gas and dilated jejunum with intestinal pneumatosis suggestive of ischemia. Given these findings, we decided emergency surgery, where we explore all the small and large intestine. The only finding was a thin segment slightly dilated but without signs of ischemia deciding to end the intervention. Subsequently, the outcome was satisfactory.

Discussion

The portal pneumatosis is due to different etiologies, such as ischemic disease and other intestinal inflammatory-infectious processes, trauma, after endoscopic procedures (3-5), etc. Classically, the presence of gas in the portal system associated with intestinal ischemia is suspected, was indicative of high mortality rate, being imperative urgent (6) surgery.

There are predisposing factors (3) for the emergence of this sign such as the escape of gas produced by microorganisms in the intestinal lumen and abscesses, or its presence in the portal venous system.

Continuous advances in imaging techniques have allowed an increase in sensitivity in the diagnosis of these findings, even though they are incipient (7,8).

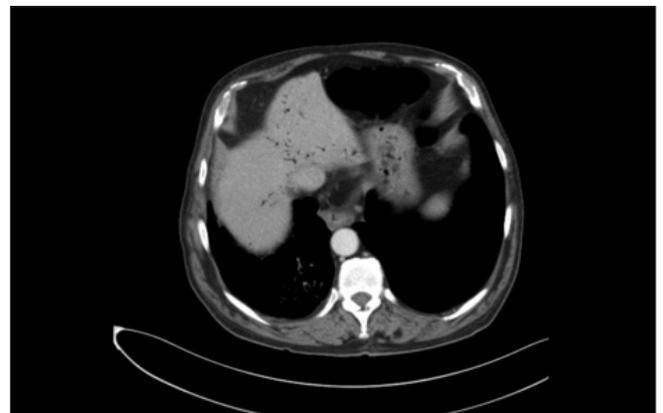


Fig. 1. Image of CT scan showing suggestive images of portal pneumatosis in patient 1.

In view of the cases presented, we confirm the presence of portal pneumatosis in situations outside the intestinal ischemia, which presented good prognosis. Likewise, we consider justified the laparotomy in the second patient, since, as several authors maintain (9,10), it is essential, at the slightest suspicion, to rule out serious clinical processes.

We conclude that the fundamental is framing the pneumatosis portal in the particular clinical context of each patient, discarding the most serious processes, which lead to high mortality and require an urgent surgical treatment.

José Felipe Reoyo-Pascual, Raquel León-Miranda,
Xandra Valero-Cerrato, Rosa M.^a Martínez-Castro,
Adel Eldabe-Mikhail and Juan Luis Seco-Gil

*Service of General and Digestive Surgery.
Hospital Universitario de Burgos. Burgos, Spain*

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