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**Hepatic portal venous gas. Should it be considered as an ominous radiologic sign?**

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

*Dear Editor,*

We would like to refer the following case, with the aim to reconsider the poor prognosis associated with portal pneumatosis and intestinal ischemia.

### **Case report**

A 63-year-old male with a medical history of a properly controlled schizophrenia presented to the Emergency Room due to diffuse abdominal pain associated with diarrheic stools without pathological products of a three-day duration. Physical examination showed abdominal defense with peritoneal irritation. Neutrophilic leukocytosis was identified during the blood test and extensive portal venous gas in the mesenteric vein and in the small intestinal wall was identified on the computed tomography (CT) scan (Fig. 1). Urgent surgery was indicated due to suspect intestinal ischemia. The findings included an 8 cm area of transmural necrosis located in the antimesenteric sigma face and patchy necrosis of the colonic mucosa (intraoperative endoscopy) from the sigmoid colon to the splenic flexure. A Hartmann's procedure was performed and there were no incidents reported during the postoperative period. The histopathological findings were ischemic colitis with transmural necrosis and fibrinopurulent peritonitis. The patient underwent surgery to restore the continuity of the gastrointestinal (GI) tract after a normal colonoscopy six months later and was eventually discharged.

## Discussion

Traditionally, portal pneumatosis has been considered as an ominous radiologic sign, which is associated with intestinal ischemia. Mortality reaches 80-90% if sepsis is present (1). Besides, inflammatory disease (acute diverticulitis, ulcerous colitis) and infections (intra-abdominal abscess, *Clostridium difficile*-associated colitis, etc.) (2) can also be present, as after traumatic events. The prognosis associated with portal pneumatosis is related to the etiopathology itself. In inflammatory processes, survival rates are close to 80% (3) and the mortality rate lowers to 0% in case of incidental findings. By contrast, a fast and aggressive treatment is needed when sepsis is present with antibiotics and a surgical intervention. This is decisive to avoid a fatal prognosis.

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Fig. 1. A. Extensive portal venous gas. B. Intestinal pneumatosis. Gas in superior mesenteric vein (\*).

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