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Clinical Image

Exceptional intraoperative aspects of mesenteric venous gas

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A 73-year-old female patient presented to the emergency department with a 3-day history of acute abdominal pain and diarrhea. She had also a history of hypertension, type 2 diabetes mellitus and hypercholesterolemia. Physical examination revealed examination a generalized abdominal tenderness with an important abdominal distension, with a body temperature of 37.5°, a pulse rate of 115 bpm and a blood pressure of 105/65 mmHg. Laboratory data showed white blood cells at 15.500/mm^3, C-reactive protein at 155 mg/l, hemoglobin at 12.3 g/dl and creatinine at 105 µmol/l. Chest radiography was normal. Contrast enhanced CT of the abdomen revealed hepatic portal venous gas with diffuse gas accumulation in the branches of the superior mesenteric vein, gaseous distention of the small bowel with reduced enhancement of the bowel wall (Figure 1). Additionally, an atheromatous obstruction was observed in the superior mesenteric artery at 4cm from its origin (Figure 2). Emergency surgery was decided. Extensive bowel infarction was observed and no mesenteric artery pulse was detected. We was impressed by the exceptional intraoperative aspects of gas accumulation in the superior mesenteric vein (Figure 3). No such image has been published in the literature. Therapeutic abstention was decided. Patient died shortly afterwards.

Hepatic portal venous gas is a rare radiological sign which carries a worse prognosis. It's associated with numerous

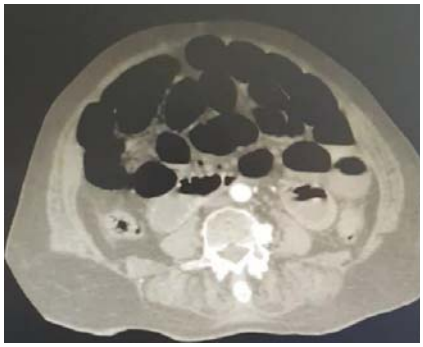

Figure 1: CT scan images of small bowel distention with reduced enhancement of the bowel wall.

Figure 2: CT scan images of superior mesenteric vein obstruction.

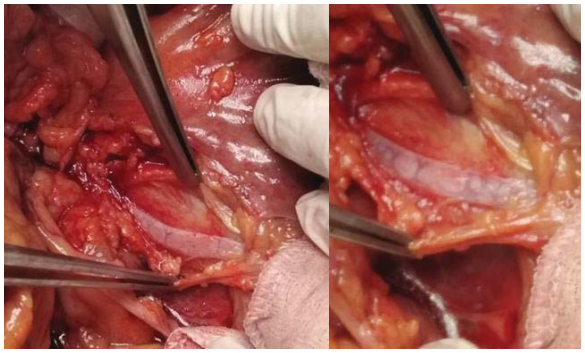

Figure 3: Intraoperative aspect of gas accumulation in the superior mesenteric vein.

More Information

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underlying abdominal disease [1]. Advanced bowel infarction is the most frequent cause, but it can be present in other conditions like ulcerative colitis, intraabdominal abscess, small bowel obstruction, and gastric ulcers [2]. The diagnosis is usually made by computed tomography, and often shows advanced disease [3]. The originality of our case consists in the intraoperative aspect of the mesenteric venous gas which has never been published in the literature.

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