

Gas in the superior mesenteric artery

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DESCRIPTION

A woman aged 83 years with mediastinal tumour was admitted to our hospital with 2 days of abdominal pain. She had reduced consciousness and abdominal tenderness with peritoneal signs. Vital signs, physical examination and laboratory findings indicated sepsis and disseminated intravascular coagulation (DIC) with pan-peritonitis. Contrast-enhanced CT showed lack of enhancement in the intestinal and caecal wall, with intramural gas (figure 1A), portal venous gas (figure 1B) and gas in the superior mesenteric artery (SMA) (figure 1C). Diffuse intestinal necrosis with SMA occlusion was diagnosed. SMA thromboembolism was suspected and Trousseau's syndrome cannot be ruled out as the exacerbation factor. We performed bowel resection and anastomosis; portions of the small intestine, caecum and ascending colon were resected (figure 2). A total of 375 cm were resected, leaving 160 cm of the intestine. She recovered from sepsis and DIC and resumed feeding on postoperative day (POD) 2. However, she died on POD 27 due to progression of a mediastinal tumour.

SMA occlusion is a deadly disease.¹ Findings of intramural gas and portal venous gas are typical in severe intestinal and mesenteric ischaemia.² However, there are few reports on gas in the SMA,³ which is a rare finding.

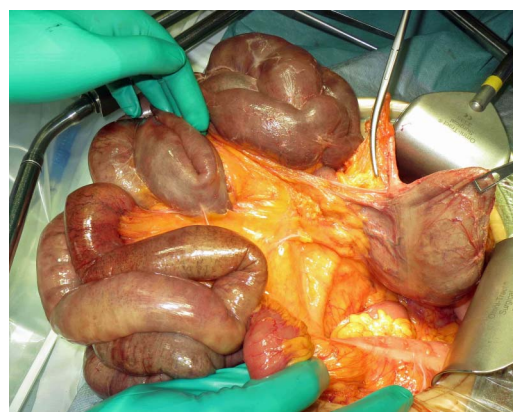


Figure 2 Operative findings showing severe necrotic small intestine and ascending colon with sharp demarcations.

Learning points

- ▶ Superior mesenteric artery (SMA) occlusion and mesenteric ischaemia are lethal conditions that are often difficult to diagnose without imaging.
- ▶ Prompt diagnosis and treatment are essential for recovery.
- ▶ Intramural gas and portal venous gas are often found. Gas in the SMA is very rare, but key to the recognition of severe mesenteric ischaemia.

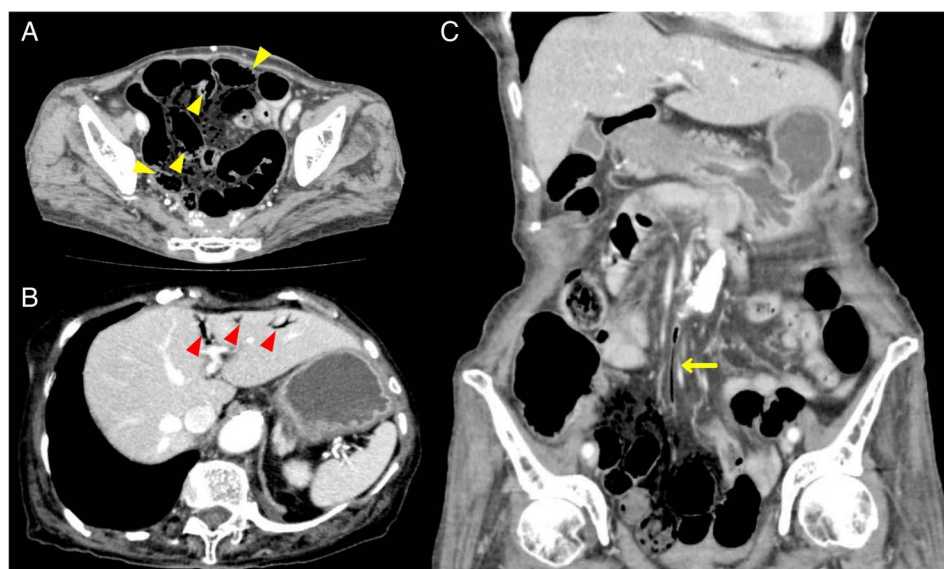


Figure 1 Axial contrast-enhanced CT showing a lack of enhancement in the intestinal wall and intramural gas (yellow arrowheads, A) and the liver showing a portal venous gas (red arrowheads, B). Coronal contrast-enhanced CT showing a gas in the superior mesenteric artery (yellow arrow, C).



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