

Pneumatosis intestinalis presenting as a partial small bowel obstruction

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DESCRIPTION

An 88-year-old man presented to casualty with severe abdominal pain and vomiting. Chest x-ray was suspicious for free intraperitoneal air. Abdominal x-ray was in keeping with small bowel obstruction. CT also suggested free intraperitoneal gas and the patient proceeded to laparotomy (figure 1).

Intraoperatively, a moderate volume of free fluid was noted; however, there was no free intraperitoneal air. Gross pneumatosis and diverticulosis of the small bowel was present (figure 2). A volvulus secondary to adhesions was divided and reduced. All small bowel remained viable. Postoperative recovery was unremarkable and the patient has since been discharged from follow-up.

Pneumatosis is a rare condition characterised by gas in the submucosa and subserosa of the bowel wall. The condition was initially described in 1783 by Du Vernoi and has carried multiple pseudonyms since then. It is felt that the incidence may be increasing secondary to the use of CT for intra-abdominal pathology.¹

Pneumatosis has a wide range of pathogenesis including pulmonary disease, scleroderma, immunosuppression and multiple gastrointestinal pathologies. It is also believed the incidence may be increasing secondary to iatrogenic causes, including instrumentation of the gastrointestinal tract and prescribed medications.²

Pear *et al*³ identified bowel ischaemia, infarction, neutropaenic colitis, volvulus and sepsis as the most



Figure 2 Gross pneumatosis of the small bowel identified at the time of laparotomy.

common life-threatening causes of intramural gas. Surgical intervention may be required in patients presenting with evidence of obstruction, ischaemic bowel and an acute abdomen.

Learning points

- ▶ Pneumatosis intestinalis is usually a sign of an underlying pathology.
- ▶ It may be managed conservatively or surgically—careful clinical assessment is required to guide treatment.

Competing interests None.

Patient consent Obtained.

Provenance and peer review Not commissioned; externally peer reviewed.

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Figure 1 Transverse plane CT scan of the abdomen showing bubbles of air within the bowel wall.

To cite: Marley WD, Dodd B, Spence G. *BMJ Case Reports* Published online: 17 December 2012 doi:10.1136/bcr-2012-007291

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