Rare disease

Colonic obstruction caused by intraluminal haematoma

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Summary

We report a rare case of caecal obstruction in an anticoagulated elderly patient, who presented with abdominal pain and per-rectal bleeding. CT revealed obstruction in the ascending colon. The patient subsequently underwent a right hemicolectomy for a massively distended caecum containing a large intraluminal haematoma causing obstruction.

BACKGROUND

Bowel obstruction is a common surgical emergency. However, obstruction caused by haematomata is a rare event, with the haematoma usually in an intramural position. This is commonly the result of anticoagulation therapy or trauma, and most frequently occurs in the small bowel. Intraluminal haematomata causing obstruction is much less common, with few reported cases in the literature, and all referring to the small intestine. No such case of an intraluminal haematoma causing large bowel obstruction has been previously documented.

CASE PRESENTATION

A 74-year-old woman was referred with acute colicky abdominal pain and per-rectal bleeding. On examination she was haemodynamically stable and had generalised abdominal tenderness but no focal signs of peritonism. Per-rectal examination found dark stool with altered blood and clots.

The patient was on long-term anticoagulation with Warfarin for a metallic mitral valve. She had multiple comorbidities, including cardiac arrhythmias with pace-maker in situ, chronic kidney disease and inflammatory bowel disease.

INVESTIGATIONS

Admission international normalised ratio (INR) was 4.4 and haemoglobin 6.9 g/dl. Inflammatory markers were within normal ranges. A plain abdominal X-ray on admission revealed non-specific loops of small bowel, which were not particularly distended. The initial impression was of a diverticular bleed and the patient was managed with blood transfusions. Her Warfarin was stopped and changed to intravenous unfractionated heparin to obtain better control of her anticoagulation and reduce the bleeding. However, a few days following admission the patient developed increasing abdominal distension and discomfort. CT revealed a grossly dilated caecum with faeces within, thickened caecal wall and a possible obstructing lesion in the ascending colon (figure 1).

DIFFERENTIAL DIAGNOSIS

The main differential following the CT scan was of a neoplastic or inflammatory stricture causing colonic obstruction.

TREATMENT

At laparotomy, a grossly dilated caecum and dilated distal ileum were found, with no perforation. A right hemicolectomy was performed. Macroscopic analysis of the specimen in theatre postresection revealed no stricture, but a large intraluminal haematoma as cause for the obstruction.

OUTCOME AND FOLLOW-UP

Histological analysis of the ileocaecal valve and ascending colon showed areas of mucosal ulceration with inflammatory exudate. There were no thrombi in the vessels, and no evidence of primary vasculitis or malignancy.

The patient made a very slow recovery postoperatively, and following a prolonged time in the high-dependency unit, the patient unfortunately contracted severe pneumonia and died subsequently.

Figure 1 CT of a distended caecum with intraluminal blood clot (arrow).

DISCUSSION

There are few published cases of large bowel obstruction due to haematoma. Those published report frequently intramural haematomata, and most are situated in the small bowel wall.¹ Two of these cases reported haematomata as a result of Warfarin therapy,^{2 3} one as a spontaneous case in a haemophilic.⁴

Four cases of intraluminal small bowel haematomata have been reported.^{5–8} These are similar in that the origin of the blood clot was from a bleeding source in the proximal gastrointestinal tract, and postsurgical intervention. However, to our knowledge, no cases of haematomata causing large bowel intraluminal obstruction have been reported.

The pathophysiology of the intraluminal haematoma in this case was likely a result of underlying caecal mucosal ulceration and a high INR from Warfarin therapy.

Investigation of bowel obstruction, asides from plain x-rays, mainly involves CT. CT scans would be expected to differentiate between the various differentials in bowel obstruction. In this case, CT picked up a large blood clot causing obstruction, but suspicion was that of another underlying pathology. Possibly due to the uncertainty of diagnosis or urgency of the clinical presentation with obstruction, the management of intraluminal haematomata in the previously published cases has generally been operative. In the case of small bowel intraluminal obstruction, enterotomy and evacuation of the haematoma have been successful,⁹ avoiding resection of bowel. In contrast, the anatomy of the colon does make a colotomy for access less favourable, and diagnostic difficulties may persist considering the size of the haematoma required to cause obstruction by itself, as it was in this case. Thus, surgical resection of the affected bowel usually may be necessary.

Learning points

- ▶ Large bowel obstruction can be caused by intraluminal foreign bodies, bezoars or, rarely, haematoma.
- ▶ Intramural haematomata causing obstruction is more common than intraluminal haematomata, and usually arise as a result of trauma.
- ▶ Investigation should involve CT scanning to differentiate between the various causes of obstruction.
- ▶ Management can be difficult due to inconclusive diagnostic procedures, and often involves surgical intervention.

Competing interests None.

Patient consent Obtained.

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