Unusual association of diseases/symptoms

Jejunal intussusception: a cause of upper gastrointestinal bleeding?

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Summary

Intussusception is an important cause of abdominal pain in the paediatric population and is the most common abdominal emergency in early childhood. Intussusception in adults is, however, rare and can lead to diagnostic challenges for admitting physicians/surgeons. We present a case of a 76-year-old lady with history of a recent myocardial infarction and vasculitis presenting with melaena and bleeding per rectum, with suspicion of haematochezia. She complained of abdominal pain but was not clinically obstructed. Gastroscopy performed was negative. Colonoscopy was attempted; however, it was inconclusive because of active bleeding. A CT angiogram of the abdomen was performed, which showed a jejunal intussusception. There was no evidence of vasculitis or small bowel obstruction. She was not considered fit for surgery and was managed conservatively.

BACKGROUND

Jejunal intussusception can cause obstruction, haemorrhage and perforation and patients may require surgery when presenting with complications of intussusceptions as above.

Although the first line investigations for upper gastrointestinal (GI) bleeding should be gastroscopy, one must not forget the importance of further imaging to identify the source of bleeding and rule out other bowel pathology. CT angiogram can be used to find the site and possible cause of GI bleeding.

CASE PRESENTATION

A 76-year-old woman, with a medical history of vasculitis and myocardial infarction presented to the emergency department with an episode of a large melaena and per rectum bleed and associated abdominal pain with no clinical symptoms or signs of small bowel obstruction. She was afebrile, tachypnoeic, tachycardic and hypotensive.

Examination revealed a soft abdomen with no tenderness. Rectal examination demonstrated melaena and some fresh blood. Bowel sounds were present and there were no clinical signs of peritonitis. Blood tests revealed low haemoglobin with a normal clotting screen. She became haemodynamically normal after intensive resuscitation.

Gastroscopy performed initially, revealed no abnormalities. Colonoscopy was attempted; however, it was inconclusive owing to active bleeding.

An urgent CT angiogram of the abdomen was performed which revealed the characteristic target lesion (lumen within lumen)—a hallmark of intussusception (figure 1). No active bleeding site was identified.

As the patient was high risk for surgery owing to her comorbidities and also because she was not clinically obstructed, she was managed conservatively, with a plan to perform CT angiogram +/- embolisation, if there is

Figure 1 CT scan of the abdomen depicting a 'target lesion' of jejunal intussusception.

recurrence. To our knowledge, the patient has not been readmitted with recurrence of her symptoms.

DISCUSSION

A jejunal intussusception was found on imaging in this patient. Although there is a possibility that vasculitis affecting the gut may have caused the bleeding, there was no evidence of vasculitis on imaging and thus intussusception remains the most likely cause of her symptoms.

Intussusception is defined as prolapsing of a proximal portion of bowel (intussusceptum) within its mesenteric fold into the lumen of a contiguous segment (intussusciens).¹ It is usually classified according to the location of the intussusception. The four types are ileo-colic (the most common), ileo-ileo-colic, colo-colic and small bowel intussusceptions (jejuno-jejunal and ileo-ileal).

Intussusception is a well-known cause of abdominal pain in children. It is, however, rare in adults. It accounts for only 0.005% of hospital admissions.² Proximal small bowel intussusception is considered particularly uncommon.

Childhood intussusception is considered idiopathic in 90% of cases; however, in adults, a demonstrable leading lesion can be revealed in over 90% of cases.³ The majority of the causes of jejunal intussusception in adults are benign lesions such as submucosal lipomas/polyps. However, approximately 15% of cases may be due to malignant lesions.

The mean age at presentation in adults tends to be in the 60s. Higher age at presentation of intussusceptions is more suggestive of an underlying malignant cause. These include adenocarcinoma, metastasis from primary sites such as lung or breast and primary lymphoma.⁴ 20% cases are idiopathic. Another form of intussusception is a temporary non-obstructing type.¹

Adult intussusception commonly presents with abdominal pain, nausea and vomiting with symptoms and signs of bowel obstruction. It is, however, also a rare cause of GI bleed.⁵ A currant jelly stool, typically seen in children, is not usually seen in adults.

Intussusception as a cause of upper GI bleeding is difficult to diagnose. If a patient presents with melaena followed by per rectal bleeding, one should suspect upper GI bleed until proven otherwise. The passage of fresh red blood (haematochezia) due to an upper GI bleed often indicates a very large bleed.

If gastroscopy is negative, performing colonoscopy/sigmoidoscopy may not be conclusive during an active bleed as it is difficult to identify the source of bleeding. An urgent CT angiogram/mesenteric angiogram of the abdomen at this point can then be invaluable. This is useful for identifying the site of bleed and performing embolisation, if necessary, with the assistance of an interventional radiologist. If this is not possible or facilities are

unavailable, the patient may then be treated by surgical means.

In children, intussusception can be treated with non-operative reduction using hydrostatic or pneumatic pressure by enema with high success rates.⁶ Surgery is reserved for refractory or recurrent cases and in patients who are acutely ill or have evidence of perforation. In adults, however, operative treatment to reduce the intussusception is often performed. The intussusception is reduced as safely as possible and limited resection of the bowel is performed to preserve length. If there is malignancy, careful manipulation takes place to reduce dissemination.⁶

It is important to remember that not all patients require surgical management, as in our case. Surgical treatment is particularly important for patients presenting with obstruction and the absence of these symptoms in our patient enabled us to treat her conservatively. It is also important to remember that some patients may have intermittent intussusception. If patients are therefore stable and no longer actively bleeding, they may simply require observation and conservative management.

Learning points

- ▶ Jejunal intussusception may resolve with conservative management.
- ▶ Small bowel intussusception in adults is rare.
- ▶ Jejunal intussusception is a rare cause of upper gastrointestinal (GI) bleeding.
- ▶ Melaena followed by per rectal bleed is indicative of upper GI bleed unless proven otherwise.
- ▶ CT angiogram/mesenteric angiogram is an important diagnostic and therapeutic tool for patients with gastrointestinal bleed where the source of bleeding could not be identified by endoscopy.

Competing interests None.

Patient consent Obtained.

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