Rare disease

Adult idiopathic jejuno-ileal intussusception

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Summary

This 67-year-old woman, with numerous previous abdominal operations, presented to her general practitioner 3 years ago with generalised abdominal pain and diarrhoea. With unremarkable haematology tests and a CT scan at that time she was given the diagnosis of irritable bowel syndrome. During the next 3 years her symptoms continued intermittently and now associated with vomiting and weight loss. This time both a barium follow-through followed by a CT scan demonstrated a small bowel intussusception. A laparotomy was done but surprisingly no intussusception was found, only a single adhesional band which was divided. She was discharged 5-days postoperative but re-admitted 3 days later with abdominal discomfort, bloating and vomiting. A repeat CT scan again showed the presence of a small bowel intussusception and a second laparotomy was performed, this time demonstrating a jejuno-ileal intussusception which was reduced and resected with primary anastomosis. Her postoperative course was without incidents.

BACKGROUND

Intussusception in adults is a rare cause of abdominal pain found in less than 1% of patients presenting with small bowel obstruction.¹ A pathological lesion in the bowel wall is found in 90% with a third of these being malignant and the remainder being benign.^{2–5} We report the case of a 67-year-old woman who has been troubled by intermittent abdominal pain and weight loss and in whom the diagnosis of idiopathic intussusception was not immediately apparent. This case highlights intussusception as a cause of abdominal pain which should be considered in the differentials in patients presenting with similar generalised intermittent symptoms. It is a condition that is readily treatable

once diagnosis is made and, as this case demonstrates, not all have a defined anatomical abnormality acting as a lead point. What makes this case particularly interesting is the long duration of symptoms, and that the first laparotomy showed no evidence of intussusception despite a positive CT scan but the second laparotomy did demonstrate it.

CASE PRESENTATION

This 67-year-old lady initially presented to her general practitioner (GP) 3 years previously with intermittent generalised abdominal pain associated with diarrhoea. She had no significant medical history but did have an extensive surgical history having undergone a partial gastrectomy for

Figure 1 CT scan showing radiological evidence of small bowel intussusception seen as a 'target lesion' (arrow), that is, lumen-within-lumen.

Figure 2 Plain abdominal film on re-admission to surgical assessment unit 8 days postoperatively showing a dilated loop of small bowel consistent with obstruction (arrow).

gastric ulcer (1973), a total abdominal hysterectomy with bilateral salpingo-oophorectomy (1995), an open cholecystectomy (1998) and right breast lumpectomy for breast cancer (2000). This patient was an ex-smoker and there was no family history of note. Clinical examination revealed a slim lady with evidence of previous abdominal surgery, but no specific cause for the pain. Investigations organised by the GP, including a CT scan of the abdomen and pelvis, were normal and she was given a diagnosis of irritable bowel syndrome. Over the next 3 years her abdominal pain persisted, becoming more severe and was now associated with weight loss, however, there were no symptoms of vomiting or complete constipation. Referral to a colorectal surgeon was made. Full blood count, urea and electrolytes and liver function tests were unremarkable but a CT scan revealed features consistent with a small bowel intussusception (figure 1). A barium enema follow-through also demonstrated an intussusception in the proximal jejunum.

A capsule endoscopy showed an inflamed segment of small bowel and it was postulated that repeated episodes of intussusception could have caused such an appearance. As a result of these investigations an elective laparotomy was performed 6 weeks later. At surgery, a single adhesional band from the small bowel mesentery to the right iliac fossa was found. The rest of the contents of the peritoneal cavity were examined carefully for any signs of abnormality, including systematic palpation and visual inspection of the small bowel and no evidence of intussusception either past or present could be elicited. In particular there was no mass in the small bowel. It was assumed that the CT appearances were artefactual and that in fact the small bowel was becoming obstructed intermittently due to volvulus around the band and the adhesion was therefore divided. She made an uneventful postoperative recovery and was discharged home on postoperative day 5 tolerating small amounts of food and drink and passing flatus.

Figure 3 CT scan on readmission showing recurrent small bowel intussusception (arrow).

The patient was re-admitted to the surgical assessment unit 3 days later (day 8 postoperative) with constant upper abdominal discomfort and fullness associated with several episodes of vomiting. She had opened her bowels for the first time since her laparotomy just the day before but only small amounts. Again haematology tests were unremarkable and abdominal plain radiograph demonstrated a single dilated small bowel loop (4.5 cm) in left lower quadrant (figure 2).

The impression at this stage was that of subacute small bowel obstruction secondary to further adhesions or a prolonged ileus and so the plan was to manage her conservatively. Four days following admission she was tolerating oral fluids but vomiting with light diet. An abdominal CT scan was performed as she failed to settle which reported a 13 cm intussusception in the distal small bowel (figure 3).

DIFFERENTIAL DIAGNOSIS

1. Small bowel obstruction secondary to adhesions
2. Postoperative ileus.

TREATMENT

The patient underwent a second laparotomy the following day. On this occasion there was evidence of small bowel obstruction and it was clear that a 15 cm length of mid-jejunum had intussuscepted distally. The intussusception was reduced but the bowel was grossly oedematous with numerous serosal tears. The decision was made to resect around 30 cm of small bowel and an end-to-end anastomosis fashioned. The rest of the small bowel was inspected once again and no other abnormalities were found. The

specimen sent for histological analysis revealed no underlying pathology and no lead point.

OUTCOME AND FOLLOW-UP

Our patient made an uneventful postoperative recovery and her symptoms of abdominal pain, bloating and vomiting settled down. She is now almost 2 months postoperative and is continuing to do very well.

DISCUSSION

The long history and episodic nature of our patient's symptoms are unusual. In 2003, Takeuchi *et al* published a case series of seven patients of which four had recurring chronic symptoms. They demonstrated a range for duration of symptoms of between 1 and 365 days,⁶ and up to 5 years in another report.⁷ Adhesions are the cause of most postoperative intussusceptions and others include suture lines, motility disorders and long intestinal tubes,⁸ or which our patient had none. The fact that capsule endoscopy initially revealed some inflamed small bowel mucosa with no intussusception suggests the possibility of previous intussusception at that point. The management of small bowel intussusception in adults is almost always surgical. In this particular case our preferred management at laparotomy was manual reduction and surgical resection even though no macroscopic lead point was identified. However, some authors advocate manual reduction without resection if the bowel is healthy and no underlying pathology is found.^{9 10} A search of the literature found only one other published case of recurrent intermittent idiopathic small bowel intussusception.¹¹ This was in a 26-year-old woman highlighting the rarity of this case.

Learning points

- ▶ Consider the diagnosis of intermittent intussusception in cases of generalised intermittent abdominal pain of prolonged duration.
- ▶ We recommend resection of the intussuscepted segment at laparotomy regardless of the presence of a lead point or not.
- ▶ CT is the investigation of choice to confirm diagnosis.

Competing interests None.

Patient consent Obtained.

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