Rare disease

Giant lipoma of the small bowel associated with perforated ileal diverticulum

Jakub Kaczynski,¹ Joanna Hilton²¹Vascular Surgery Department, ABM University Health Board, Swansea, UK;²General Surgery Department, ABM University Health Board, Swansea, UK**Correspondence to** Mr Jakub Kaczynski, jakub.kaczynski@hotmail.co.uk

Summary

The authors present a rare case of the middle aged man who presented with a typical history and clinical findings suggestive of an acute appendicitis. After initial assessment, he required a surgical intervention. Operation findings revealed a perforated ileal diverticulum into a giant lipoma of the small bowel. The patient made a good postoperative recovery.

BACKGROUND

Typical presentation of common conditions such as an acute appendicitis might be misleading and mimicking a different pathology. We present a rare case of the perforated ileal diverticulum into a giant lipoma of the small bowel. To our knowledge such cases have not been reported so far in the available literature. Such presentations can be challenging diagnostically and surgically. Therefore, it is important to report our experience.

CASE PRESENTATION

A 38-year-old, healthy male presented with 72 h history of abdominal pain. The pain started initially in the central abdomen and after 48 h migrated to the right iliac fossa

(RIF). Pain was associated with nausea and vomiting, anorexia and one episode of loose motions. There was no history of previous abdominal pain or previous surgical history. The patient denied any change in bowel habit, rectal bleeding or weight loss. The patient was a non-smoker with alcohol consumption allowance below 21 units per week. There was no significant family history.

On admission, the patient was noted to be feverish with a temperature of 38.4°C. He was also hypotensive with a systolic blood pressure of 95 mm Hg and tachycardic with a heart rate of 115/min. Examination of the cardiovascular and respiratory systems was unremarkable. Abdomen was soft with positive Rovsing's sign and rebound tenderness in the RIF. Digital rectal and genital examination was normal.

Figure 1 Abdominal radiography.

Figure 2 Lipoma with the cavity.

INVESTIGATIONS

Laboratory tests showed elevated white cell count of $14.5 \times 10^9/l$ and C reactive protein of 243 mg/l. The remaining biochemical markers including liver function tests, amylase, urea and electrolytes, were within the normal range as were his haemoglobin and mean corpuscular volume levels. Urinary dipstick was negative. Abdominal radiograph was normal (figure 1). There was no additional imaging performed, such as an abdominal/pelvic ultrasound scan or CT pre or postoperatively.

DIFFERENTIAL DIAGNOSIS

In a view of clinical and laboratory findings, primary differential diagnoses in this middle aged man included appendicitis as the most likely cause of his symptoms followed by diverticulitis, perforated peptic ulcer or caecal tumour, gastroenteritis.

TREATMENT

Following fluid resuscitation, the patient underwent open surgery. Although acute appendicitis was the primary diagnosis, during the operation appendix could not be localised. A large mass (17×12×90 mm) was found in the right flank attached to the terminal ileum (figure 2).

Therefore, the decision was made to convert to a midline laparotomy and subsequently right hemicolectomy was performed. The operative findings revealed that the caecum, right hemicolon and appendix were pushed medially by the large mass (weighted 580 grams). The right hemicolectomy mobilisation exposed the terminal ileum diverticulum, which perforated into a cavity (30 mm in diameter and 25 mm deep) within the smooth fatty mass- lipoma (figures 2 and 3). The cavity within the lipoma sealed off the perforation enabling the primary side to side stapled anastomosis to be performed. The mass was mobilised from the retroperitoneum and removed along with the terminal ileum and caecum en block (figure 3).

OUTCOME AND FOLLOW-UP

Postoperatively the patient made satisfactory recovery and was discharged from hospital on day 4. Histology confirmed macroscopical findings of surgery of the perforated ileal diverticulum into the large lipoma. The case was

Figure 3 En-block specimen with the caecum, perforated ileal diverticulum and lipoma.

discussed at the regional sarcoma multi-disciplinary team and the appearances were found to be consistent with a lipoma.

DISCUSSION

Both conditions: ileal diverticula and small bowel lipoma are relatively uncommon.

To our knowledge there are not any published reports describing the perforated ileal diverticulum in connection with the lipoma. The incidence of the ileal diverticula in the general population is between 1–2%, and the vast majority of this diverticula do not cause any symptoms.¹ The diagnosis is usually incidental when patient frequently presents with the intestinal motility disorders, such as progressive systemic sclerosis, visceral neuropathies and myopathies.² However, the diverticula can occasionally lead to serious emergency complications, such as inflammation, bleeding, small bowel obstruction, volvulus and perforation.² The limited number of case reports reveal the rare examples of a ruptured congenital arterio-venous malformation within the diverticulum, an ileo-abdominal fistula following diverticular perforation and an entrapment of the capsule during wireless capsule endoscopy.³ The recommended emergency surgical treatment involves the resection of the affected intestinal segment.

On the other hand, lipoma is the third most common benign small bowel tumour arising from either submucosal adipose tissue or serosal fat.³ The occurrence increases from the duodenum to the ileum, and although in general they are asymptomatic, patients can suffer from non-specific abdominal symptoms.⁴ Furthermore, lipoma can present similarly to the diverticula with an obstruction, volvulus, intussusceptions and gastrointestinal bleeding.⁵ Surgical (open or laparoscopic) excision is recommended due to high risk of intussusception and the fact that up to two thirds of the small bowel tumours are malignant.⁴ In the presented case, the patient originally underwent open appendectomy by Lanz incision. Subsequently this was converted initially to limited midline laparotomy, but to ensure full and safe mobilisation of the mass from the retroperitoneum excision was extended to a full midline laparotomy.

Learning points

- ▶ RIF pain is not always a presentation of an acute appendicitis and other differential diagnoses should be considered.
- ▶ In unclear diagnoses of acute abdominal pain the patient should also be consented for laparotomy.
- ▶ Further imaging including CT prior to surgical intervention in selected patients with an acute abdomen should be considered.

Competing interests None.

Patient consent Obtained.

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