Unusual presentation of more common disease/injury

Primary torsion of vermiform appendix mimicking acute appendicitis

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Summary

Acute appendicitis is a common condition, 8% of the developed world have an appendicectomy in their lifetime. However, torsion of the appendix is a rare disorder first described in 1918 presenting in a manner undistinguishable from acute appendicitis. The authors describe a case of a 48-year-old man who presented with a short history consistent with acute appendicitis. At open appendicectomy, was found to have an acute clockwise torsion of the vermiform appendix at a point 0.5 cm from its base. Histological examination of the specimen was consistent with torsion of the appendix but no underlying cause for the torsion was identified. The postoperative recovery was uneventful; the patient received intravenous antibiotics for a further 48 h and was discharged home without any complications.

BACKGROUND

Acute appendicitis was first described by Reginald Fitz in 1886. It affects 8% of individuals' appendix lumen.^{1 2} Appendix lumen obstruction is typically caused by faecoliths, although calcified deposits (appendicoliths) bacteria or intestinal worms may also have a role.^{3 4} However, torsion of the appendix is rare. Approximately 35 cases have been described with the first report of this phenomenon in 1918.⁵ Clinical presentation of torsion of the appendix is indistinguishable from acute appendicitis and the diagnosis is only made at appendicectomy. Most cases have no predisposing lesion, and histological examination of the specimen shows only secondary ischaemic or necrotic change and luminal dilatation distal to the torsion site. Secondary torsion is extremely rare with cystadenoma, mucocele, faecolith impaction and local structural malformations being suggested as possible causes. Here, we report a case of primary torsion of the vermiform appendix.

CASE PRESENTATION

A previously fit and well 48-year-old farmer with no significant medical history presented with acute abdominal pain to our institution. He described 36 h of central abdominal pain which was severe and colicky in nature. The pain localised to the right iliac fossa after 24 h. He had associated nausea, vomiting and anorexia. On clinical examination, he was in pain and distressed with a tachycardia of 106 beats/min, was afebrile, had normal blood pressure, saturations and respiratory rate. He had severe right iliac fossa tenderness with associated rebound tenderness and guarding. He was resuscitated initially in the emergency department with intravenous fluids.

INVESTIGATIONS

Peripheral blood examination showed raised inflammatory markers with C reactive protein of 70 mg/l and white cell count of $14.2 \times 10^9/l$. He had negative urine analysis.

DIFFERENTIAL DIAGNOSIS

Clinically the diagnosis was of appendicitis, although other differentials included gastroenteritis and renal colic.

TREATMENT

He underwent an open appendicectomy.

OUTCOME AND FOLLOW-UP

At appendicectomy, he was found to have a severely congested and gangrenous appendix, clockwise rotated 360 degrees at a point of 0.5 cm from its base. Macroscopically, the appendix and mesoappendix had a dusky and congested appearance. Microscopical sections revealed extensive infarction with a transmural infiltrate and acute serositis with areas of full thickness necrosis suggesting possible perforation. No evidence of dysplasia or malignancy was demonstrated. The findings were consistent with torsion of the appendix. The patient received intravenous antibiotics for a total of 48 h. His postoperative recovery was uneventful and he was discharged home without complications.

DISCUSSION

Acute appendicitis is one of the most common causes of acute abdominal pain to present to a district general hospital. In contrast, torsion of the vermiform appendix is very rare. Idiopathic primary torsion is thought to be associated with long appendices, compared to secondary torsion which has a defined precipitant such as cystadenoma, mucocele, faecolith impaction or malformation. Clinically it is indistinguishable from acute appendicitis and torsion of the appendix is only identified at appendicectomy while the distinction between primary and secondary torsion is made histologically. This case described a rare case of primary torsion of the vermiform appendix.

Learning points

- ▶ Torsion of vermiform appendix is a rare pathology that can be identified only at appendicectomy.
- ▶ Torsion of the vermiform appendix mimics acute appendicitis and has an identical clinical presentation.
- ▶ 'Common things are common' – but common diagnosis can surprise us!

Competing interests None.

Patient consent Obtained.

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Please cite this article as follows (you will need to access the article online to obtain the date of publication).

Marsdin EL, Griffiths C. Primary torsion of vermiform appendix mimicking acute appendicitis. *BMJ Case Reports* 2011;10.1136/bcr.03.2011.3979, date of publication

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