An unusual presentation of a mesenteric cyst of the sigmoid colon

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Summary

A case of sigmoid mesenteric cyst presenting as an acute abdominal emergency is reported. The variable presentation and uncommon occurrence of these cysts are the main difficulties in pre-operative diagnosis.

Introduction

The aetiology, classification and incidence of mesenteric cysts has been discussed and disputed (Caropreso, 1974; Kurzweg, Daron and Williamson, 1974) ever since the first was described by the Florentine anatomist Benevieni in 1507. It had been found at post-mortem in the small bowel of an eight-year-old boy.

Cystic lesions of the omentum, mesentery and retroperitoneum are uncommon. Estimates of incidence vary from 1:30,000 to 1:250,000 hospital admissions (Kurzweg *et al.*, 1974; Loeb, 1941). There are no pathognomonic clinical features, and an accurate diagnosis is seldom made before laparotomy (Oh, Danese and Dreilin, 1967). The presentation may be in one of three ways (Walker and Putnam, 1973): (1) incidental finding at operation, (2) non-acute symptoms and signs attributable to the lesion and (3) an acute abdominal emergency. In 1964 Oliver reviewed the literature on omental cysts causing an acute abdomen, and discovered a total of 18 cases, which was 10% of all omental cysts reported.

Mesenteric cysts are probably an even rarer cause of an acute abdomen. Two such cases have been reported, one by Fahmy *et al.* (1966) and another by Hardin *et al.* (1967), and we report another.

Case report

A 37-year-old Caucasian woman was admitted on the 1st April 1981, complaining of abdominal pain which had started four days earlier. At first the pain

was mild and generalized. On the following day it became severe, generalized and colicky, and was associated with diarrhoea and vomiting. By the 31st March the pain had moved to the right iliac fossa and the diarrhoea and vomiting had stopped.

On the day of admission she had severe, constant pain in the right iliac fossa. She had not opened her bowels that day, and had not passed urine for 12 hours.

On physical examination she was tense and looked ill, with a pyrexia of 38.2°C and a tachycardia of 120/min. Blood pressure was 110/60 mmHg. Pulmonary and cardio-vascular systems were normal. The abdomen was symmetrical, but distended suprapubically, with a fluid mass. She was acutely tender in the right iliac fossa with rebound tenderness and guarding. Bowel sounds were normal. Rectal examination produced tenderness on the right.

Laboratory investigations revealed a haemoglobin of 13.4 g/dl, white blood cells $12.8 \times 10^9/l$ with 92% neutrophils. Blood electrolytes and urea were normal. No X-rays were taken.

A diagnosis of acute appendicitis with urinary retention was made and a urethral catheter was passed. This only produced 100 ml of urine and the lower abdominal mass remained unchanged. The diagnosis of appendicitis was therefore reviewed, and torsion of an ovarian cyst considered.

Abdominal exploration via a lower midline incision revealed a tense 20 × 15 cm, unilocular cyst of the sigmoid mesentery, containing 3 litres of clear, straw-coloured fluid. The sigmoid colon was collapsed and stretched across the cyst, but there was no proximal dilatation of the colon.

The cyst was dissected from the leaves of the mesentery to which it was densely adherent. There was no involvement of the bowel with the cyst wall. During the dissection, the vascular supply of the sigmoid colon was compromised, necessitating a resection of 7 cm of colon, followed by an end-to-end anastomosis. The remainder of the bowel and pelvic organs were normal.

The postoperative course was uneventful and the

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patient was discharged 10 days later. At one month follow-up she was well, with no complications.

Histopathological examination revealed a cyst with a thin fibrous wall, showing early and mild acute inflammation. There was no haemorrhage into the cyst and no neoplasia. The appearances were those of a mesenteric cyst.

Discussion

The diagnostic features of mesenteric cysts result from their size, location and presence or absence of complicating factors. These may be torsion, rupture, intra-cystic haemorrhage, pressure on adjacent structures or mechanical intestinal obstruction (Walker and Putnam, 1973).

In this case it is likely that the size and tension of the cyst distending the sigmoid mesentery were directly responsible for the symptoms described by the patient. Nevertheless it was perhaps surprising to find none of the complicating factors, any of which could be expected to cause pain.

Barr and Yamashita (1964) suggest that these lesions most commonly occur as slowly enlarging, painless swellings. However Burnett, Rosemund and Bucher (1950) state that pain is a more significant feature, and Walker and Putnam (1973) found that 7 out of 12 (60%) of their non-acute cases had pain.

The symptoms and signs of mesenteric cysts are very variable. Their presentation may be with acute or chronic symptoms, or as a chance finding at

laparotomy. Their pre-operative diagnosis is difficult as it is not easy to differentiate them from other intra-abdominal cystic swellings. An awareness of their occurrence and variable presentation is the main diagnostic aid.

Burnett *et al.* (1950) found that a majority (46.5%) of cases of mesenteric cyst are located in the small bowel mesentery, those in the sigmoid colon accounting for only 15% of the total.

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