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Case report

Colocutaneous fistula secondary to amoebiasis

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ABSTRACT

Here we present an interesting and extremely rare case of a 66 year old male who developed a colocutaneous fistula secondary to amoebiasis. The patient presented with an acute history of right lower abdominal pain, weight loss and a palpable mass. A CT scan demonstrated a fluid filled cavity in the right iliac fossa consistent with an appendiceal abscess which was drained under radiological guidance. However, following drainage his symptoms remained requiring open surgical drainage, and a controlled caecostomy was performed due to a small caecal perforation. Despite appropriate conservative therapy he failed to progress, and developed localised sepsis in the right iliac fossa with a colocutaneous fistula, requiring a formal right hemicolectomy. The histological examination confirmed the presence of abundant trophozoites of *Entamoeba histolytica*.

We highlight the fact that in the modern age of immigration and long distance travel, it will become increasingly likely that the so-called 'tropical' diseases will present throughout the world. This case also highlights the need to keep an open mind in cases that do not progress as expected, and to react accordingly to any unusual developments.

1. Introduction

Entamoeba histolytica is particularly prevalent in tropical and subtropical regions, and is thought to affect 10% of the population, of which 90% will be asymptomatic.[1] Colonic perforation is a widely known complication of the disease, though colonic fistulae are rare. We report a case of a colocutaneous fistula secondary to amoebiasis, which was initially managed as an appendiceal abscess.

2. Case presentation

We present an interesting case of a 66 year old gentleman with a history of hypertension. He was otherwise fit and well and had no previous abdominal surgery. He presented to the surgical department with a three week history of worsening right iliac fossa pain, more so over the previous week. There was no alteration in his bowel habit, but had lost a stone in weight over the preceding month.

On examination he appeared well, afebrile, with normal observations. The abdomen was soft with mild tenderness in the right iliac fossa where a mass was palpable. Per rectal examination was unremarkable. Initial haematological examination revealed Hb 11.6 g/dL, MCV 89fL, WCC $9.9 \times 10^3/\mu L$, urea, electrolytes and liver function tests were normal. C-reactive Protein was 199 mg/L and CEA 1.4 μg/L.

A CT scan revealed a focal fluid collection in the right iliac fossa measuring 5 cm × 5 cm × 7 cm (Fig. 1). The appendix was not easily identifiable, but a diagnosis of an appendiceal abscess was made. This was drained under radiological guidance due to his non-toxic status and he was discharged 48 h later with a drain in situ which was to be flushed daily.

On review five days later, his inflammatory markers were noted to be rising and a residual 6 cm × 4 cm abscess was identified on ultrasound examination. Intravenous Ertapenem was commenced and he was listed for surgical drainage. Under general anaesthetic a Lanz incision was made. A large abscess cavity was identified, as well as a small perforation noted in a friable caecum, which was presumed to be the site of the appendicular orifice. A Foley catheter was inserted and secured to act as a controlled faecal fistula (colocutaneous fistula). Post operatively the patient was commenced on total parenteral nutritional in order for spontaneous closure of the colocutaneous fistula.

Two weeks later, the catheter was draining minimal amounts, and both TPN and antibiotics were ceased. A fistulogram was performed with 50 ml of omnipaque contrast which showed the contrast to be confined to the lumen of the caecum and ascending colon (Fig. 2). The wound had become progressively necrotic, and this superficial necrosis was debrided in theatre. He was discharged home the following day with input from the tissue viability team.

Following a further two weeks of conservative therapy, the external opening of the colocutaneous fistula was noted to be

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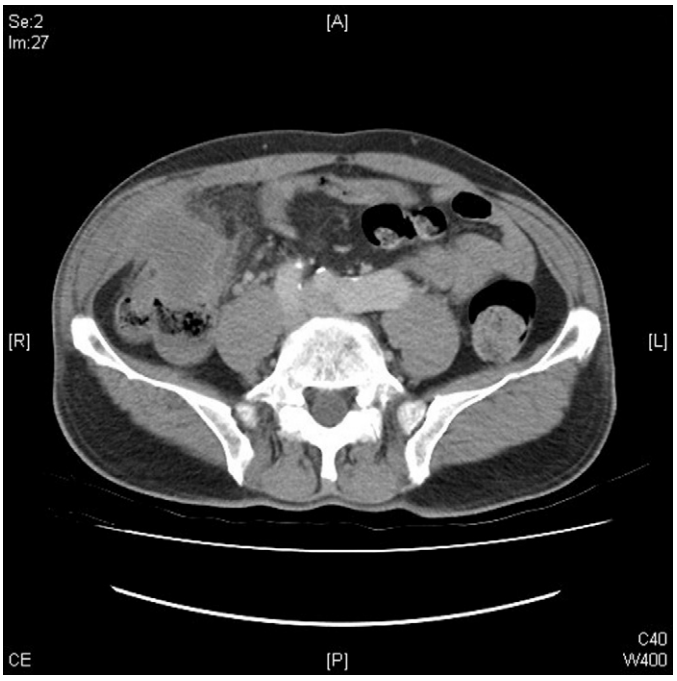

Fig. 1. CT displaying a 5 cm × 7 cm abscess in the right iliac fossa.

enlarging with further loss of soft tissue causing local sepsis (Fig. 3), and a further CT scan revealed the colocutaneous fistula (Fig. 4) and marked thickening of the anterior abdominal wall consistent with infection.

In view of the apparent deterioration locally he underwent a laparotomy. Intraoperatively, a perforated caecum was noted to be fistulating into the anterior abdominal wall. It was presumed that a caecal malignancy was a strong possibility; however there was no evidence of metastases. A right hemicolectomy was performed followed by peritoneal lavage and a double barrelled stoma was

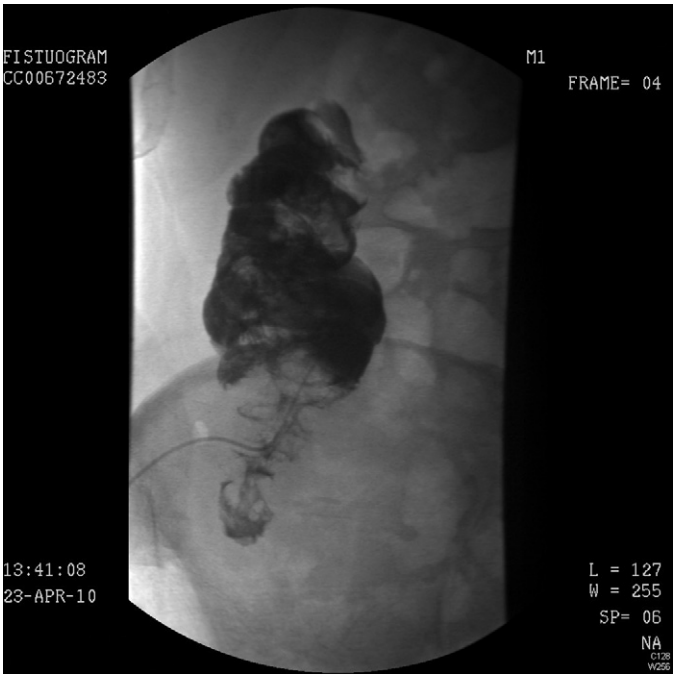

Fig. 2. Fistulogram showing omnipaque being contained intraluminally with no peritoneal spillage. No distal obstruction in seen.

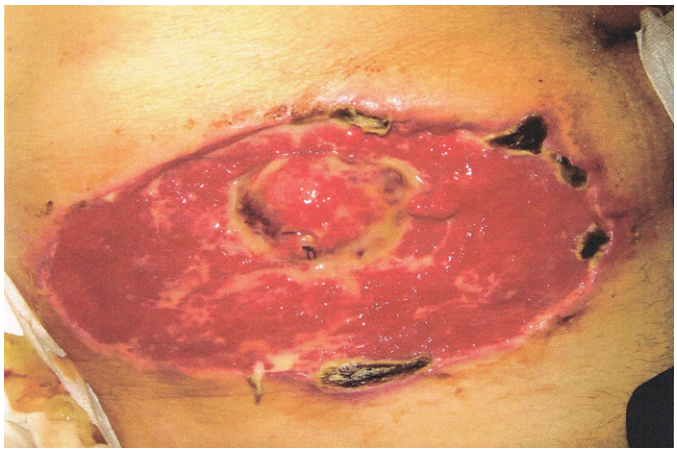

Fig. 3. Four weeks following open drainage of the abscess through a Lanz incision the wound had broken down with evidence of necrosis. The wound is seen encompass the entire right lower quadrant of the abdomen.

formed. Primary anastomosis was adjudged to be unsuitable given the patients anaemia, low albumin and sepsis. Due to the extent of contamination of the right side of the abdominal wall, this stoma was sited in the left iliac fossa. Following colonic resection he made an uneventful recovery.

Histopathological examination of the caecum revealed active inflammation and flask shaped ulceration of the mucosa associated with full thickness necrosis resulting in caecal perforation. The inflammatory exudate and the ulcerating tissue contained abundant trophozoites of *E. histolytica* (Fig. 5). The bowel mucosa away from the ulcerated area was unremarkable. On further questioning the patient recalled that he had relatively recently (within the last twelve months) visited Cape Verde and had developed a short 'Gastroenteritis' like illness there which had settled with no specific intervention. He was commenced on a course of metronidazole, and an ultrasound of his liver excluded the presence of abscesses. Five months later his wound had fully epithelialised and the stoma has been successfully reversed.

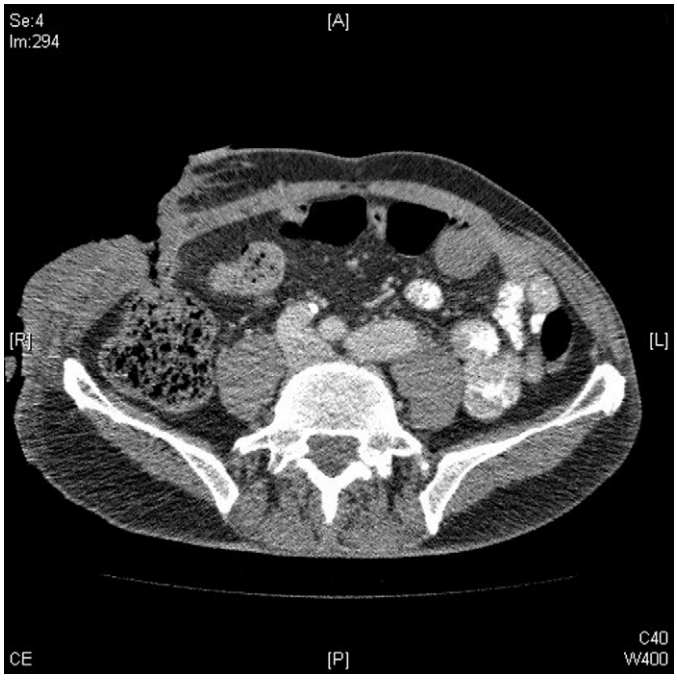

Fig. 4. CT slice clearly displaying a fistula between the abdominal wall and caecum.