Caecal diverticulitis: can it be differentiated from acute appendicitis?

Introduction

Caecal diverticulitis is a rare cause of right iliac fossa pain in the Western world. It is often clinically indistinguishable from acute appendicitis. This article presents two cases of patients with caecal diverticulitis who were suspected to have acute appendicitis before operation.

Discussion

Caecal diverticulitis is rare in the Western world although it is more commonly seen in oriental populations (Junge et al, 2003). In Western countries, 85% of all diverticula occur in the descending colon and sigmoid colon, whereas the incidence of right-sided diverticular disease in the oriental countries can be up to 71%. The preoperative distinction between right-sided diverticulitis and appendicitis is extremely difficult based on clinical presentation alone and the correct diagnosis of caecal diverticulitis is commonly made intraoperatively during exploration for suspected appendicitis.

Both ultrasound (Chou et al, 2001) and computed tomography (Jhaveri et al, 2002) have been evaluated in the diagnosis of right-sided diverticulitis. Chou et al reviewed 934 patients and reported that ultrasound could differentiate between right-sided diverticulitis and acute appendicitis with a sensitivity of 91.3% and a specificity of 99.8% and overall accuracy of 99.5%. However, both patients described in this report had normal abdominal imaging; the first patient a normal computed tomography and the second a normal ultrasound scan.

Fang et al (2003) reviewed 85 patients with caecal diverticulitis and recommended aggressive resection as less than 40% of their patients were successfully treated conservatively. In patients who had appendicectomy as the only surgical intervention, 29% developed recurrent right-sided diverticulitis and 12.5% required subsequent right hemicolectomy. However, the management of patients with non-perforated caecal diverticulitis is varied and controversial. The most conservative approach is to complete appendicectomy and continue with antibiotics (Chiu et al, 2001) in much the same way as with the first patient. This was the best option in this patient considering his co-morbidity. This course of management risks missing an inflammatory carcinoma of right colon particularly if there is any mass.

Conclusions

Caecal diverticulitis is rare but difficult to differentiate from acute appendicitis preoperatively, and should be considered in the differential diagnosis of right iliac fossa pain as some patients might need resection of the right colon. BJHM

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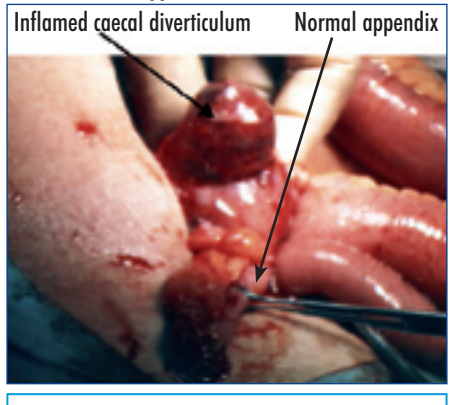
Case Report 1

A 76-year-old man was referred with a 24-hour history of right iliac fossa pain, nausea, vomiting and diarrhoea. He had a history of an abdominal aortic aneurysm (AAA) treated with endovascular stenting. He was not pale and his temperature was 37.6°C. There was tenderness and guarding in the right iliac fossa. Urinalysis was normal. Haemoglobin was 11 g/dl; white cell count was 14.6×10^9/litre with neutrophilia. Computed tomography of his abdomen excluded any leak, false aneurysmal formation related to the stented AAA or any mass lesion or abscess in the right iliac fossa. A presumptive diagnosis of acute appendicitis was made and the patient was taken to theatre for open appendicectomy. A normal appendix and an inflamed solitary caecal diverticulum were found at surgery (*Figure 1*). The rest of the bowel was normal. It was decided to leave the caecum with the diverticulum but to perform appendicectomy. Histology confirmed normal appendix.

Case Report 2

A 45-year-old woman was referred with a 72-hour history of persisting right iliac fossa pain, nausea and vomiting. Her menstrual periods were regular. She denied any vaginal discharge or urinary symptoms. She had no significant medical or family history. On examination she had a temperature of 37.5°C and there was tenderness and guarding in the right iliac fossa. Urinalysis and pregnancy test were normal. All other laboratory results were in normal limits, apart from C-reactive protein. Ultrasound scan of the abdomen and pelvis was normal. A presumptive diagnosis of acute appendicitis was made and the patient was taken to theatre for laparoscopy which revealed an area of inflammation in the caecum with omentum stuck onto it. There were some visible diverticula in the caecum and ascending colon but normal-looking appendix which was left alone. She was treated with antibiotics and had an outpatient colonoscopy and barium enema.

Figure 1. Intraoperative photograph from case 1 showing the inflamed solitary caecal diverticulum and the normal appendix.



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