Ulster Med J 2005; **74 (2)** 132-133

Case Report

Solitary caecal diverticulitis – a rare cause of right iliac fossa pain

FA Abogunrin, N Arya, JE Somerville, S Refsum

Accepted 11 June 2005

INTRODUCTION

Caecal diverticulitis, although relatively uncommon in the western population, presents an interesting diagnostic dilemma.[1] The clinical presentation usually is similar to acute appendicitis.[2, 3] Intra-operatively, solitary caecal diverticulitis may be difficult to distinguish from granulomatous disease or carcinoma.[1, 4] We report a case of solitary caecal diverticulitis that presented with clinical features suggestive of acute appendicitis.

CASE REPORT A 20-year-old Caucasian male presented with a 14-hour history of right lower abdominal pain associated with anorexia and low-grade pyrexia. Clinical examination revealed localised tenderness and guarding in the right iliac fossa. White cell count was slightly elevated at 12 x 10^9/L, with C-reactive protein raised to 54 mg/L (Normal 0-10 mg/L).

He was operated on with a clinical diagnosis of acute appendicitis. The appendix was retrocaecal in position, but normal. There was an indurated, thickened and raised 4 x 4cm area on the anterior wall of the caecum. Mobilisation and palpation of the caecum suggested the diagnosis of a caecal diverticulum with inflammation. Due to the proximity of the caecal diverticulum to the ileo-caecal valve, a limited ileo-caecal resection with ileo-colic anastomosis was carried out. The post-operative period was essentially uneventful, and he was discharged home on 7th post-operative day.

Histology showed a solitary caecal diverticulum lined with colonic type mucosa, which had become ulcerated and inflamed with overlying serosal exudates (*Figure*). The appendix was normal.

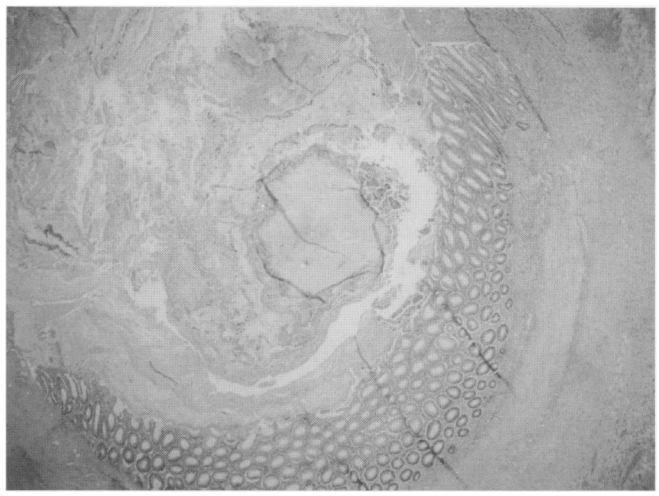

Fig. Caecal diverticulum with ulceration of the mucosa and transmural inflammation.

DISCUSSION

Caecal diverticular disease is more common in the far eastern Asian population, and usually occurs as a part of diffuse right-sided diverticular disease. Solitary caecal diverticulum is relatively uncommon and the precise aetiology is unknown.[2, 4] Most are thought to be congenital in origin and contains all the layers

Belfast City Hospital, Lisburn Road, Belfast BT9 7AB.

FA Abogunrin, MB, BS, Senior House Officer.

N Arya, FRCS(Ed), FRCS(Glas), Specialist Registrar.

JE Somerville, BSc, MB, FRCPath, Consultant Histopathologist.

S Refsum, BSc, MD, FRCS, Consultant General and Breast Surgeon.

Correspondence to Mr Arya.

E-mail: nityaarya@hotmail.com

of the colonic wall.[5] However in patients presenting with caecal diverticulitis, the histological picture may be distorted because of the inflammation and necrosis affecting the wall of the diverticulum.

Eighty percent of all solitary caecal diverticulum are located about 2.5cm from the ileo-caecal junction, and about 50% are found on the anterior caecal wall.[5] The commonest clinical presentation arises from inflammation of the caecal diverticulum.[3] Other complications include perforation, haemorrhage and torsion.[2,3]

Acute appendicitis is the commonest misdiagnosis made in cases of caecal diverticulitis because of the similarity in the presenting symptoms and signs.[1,2] The average age of presentation in most series is in the early to mid forties (ranges from 20 to 51 years), about 10 to 20 years younger than the average age of presentation of left sided diverticulitis.[1] Patients usually present with right iliac fossa pain, associated with pyrexia, nausea and anorexia. Most patients have leucocytosis, but a palpable mass is uncommon.

Contrast enhanced CT scan is the most useful investigation for pre-operative diagnosis.[6] Diagnostic features include preserved enhancement pattern of the thickened caecal wall, extra-luminal mass, associated with haziness and linear stranding of the peri-caecal fat. Ultrasound scan is not very sensitive, and may show a hypo-echoic focus on a segment of the thickened caecal wall.[6] Barium enema is not a useful investigation during the acute presentation, as the caecal diverticulum is usually not visualised because of obliteration of the lumen caused by inflammation and edema.

Patients can be treated conservatively with antibiotics if a confident pre-operative diagnosis is made.[4] However, in most patients the diagnosis is made intra-operatively, when these patients are operated on with a presumptive diagnosis of acute appendicitis.

During operation, the caecum is fully mobilised for a closer inspection of the caecum. It is usually possible to palpate the ostium or faecolith after invaginating the opposite caecal wall, which helps in confirming the diagnosis .[1] If a confident intra-operative diagnosis can be made, surgery should be conservative in the form of diverticulectomy or invagination of the diverticulum and appendicectomy or a limited ileo-caecal resection.[3,4,5] Right hemicolectomy carries a higher morbidity and mortality and should be carried out only if malignancy cannot be excluded or there is extensive local inflammation associated with perforation of the caecal diverticulum.

Our case report illustrates the importance of being aware of caecal diverticulitis as a differential diagnosis. Conservative surgical treatment is usually sufficient in the management of these patients if the diagnosis is made during the operation.

REFERENCES

1. Fischer MG, Farkas AM. Diverticulitis of the cecum and ascending colon. *Dis Colon Rectum* 1984; **27(7):** 454-8.
2. Mealy K. Solitary caecal diverticular presenting with right iliac fossa pain. *Br J Hosp Med* 1989; **41(3):** 284-5.
3. Wagner DE, Zollinger RW. Diverticulitis of the caecum and ascending colon. *Arch Surg* 1961; **83:** 436 -43.
4. Rasmussen I, Enbiad P. Acute solitary diverticulitis of the caecum. Case report. *Acta Chir Scand* 1988; **154(5-6):** 399-401.
5. Lauridsen J, Ross FP. Acute diverticulitis of the caecum: a report of four cases and review of one hundred and fifty-three surgical cases. *Arch Surg* 1952; **64(3):** 320-30.
6. Lim KG. Caecal diverticulitis – a review of eight cases in Taiping, Malaysia. *Med J Malaysia* 1999; **54(2):** 230-4.