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Primary Tuberculosis of the Appendix

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In a case of acute abdomen, pyogenic appendicitis is sometimes indistinguishable from tuberculous appendicitis until histology is performed. Involvement of appendix in intestinal tract tuberculosis has been reported in the literature but appendicular tuberculosis is hardly mentioned. Considering the rarity of the condition, a case of primary tuberculosis of the appendix with multiple mesenteric tuberculous abscesses is reported. This is the first case the present authors have come across following 2300 appendicectomies performed in their institution between 1970 and 1986.

CASE REPORT

A 35-year-old male was admitted with history of low grade fever and diffuse pain all over the abdomen of 20 days duration, associated with occasional vomiting and mucous diarrhoea. There was no history of previous ill health.

Examination—The patient was dehydrated, anaemic, poorly nourished and febrile. Respiratory and cardiovascular systems were normal. On abdominal examination there was severe tenderness over the right iliac fossa, with muscle guarding present throughout the lower abdomen on the right side. Rectal examination elicited tenderness on the right side of the rectal wall.

Investigations—Haemoglobin — 11.5 g/dl, total leucocyte count — 14,600/cmm with neutrophils — 80%, lymphocytes — 18%, eosinophils — 2%. ESR — 60 mm/1st hour (Westergren method). Straight x-ray abdomen showed no abnormal findings. Chest x-ray and routine urine examination were normal.

Management—The patient was provisionally diagnosed as a case of acute appendicitis, and selected for laparotomy after correcting his fluid and electrolyte deficits. Under general anaesthesia along a right mid-paramedian incision abdomen was opened. The appendix was found to be enormously thickened, inflamed and covered with fibrinous exudates (Fig 1). Peritoneal soiling was in the form of fibrinous exudates spread all over the bowel loops and involving the paracolic gutter and the pelvis. Appendix was about 10 cm long and 2.5 cm in diameter and was separated from the ileum to which it was adherent. The base of the appendix was thickened. There was no obvious perforation of the appendix visualised. An appendicectomy was carried out in the usual way, but the stump burial was very difficult and had to be reinforced with oedematous meso-appendix. There were also multiple small abscesses, which were about 1.5 cm in diameter, present at the base of the mesentery. These were incised,

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Fig 1 — Showing the Grossly Inflamed, Thickened and Oedematous Appendix Brought Out through the Incision

pus drained and deroofed and the wall of the abscess cavity sent for histopathological examination, along with the appendix. There were no tubercles present anywhere on the surface of the gut wall, visceral or parietal peritoneum. The abdomen was closed with a drain in the right iliac fossa. The culture results of pus from the abscess cavities were negative, guinea-pig inoculation of the pus was not done due to lack of facilities.

Histopathology—Longitudinal section of the appendix showed only caseous spots on the wall of the appendix. No stricture was present. Section from the wall of the abscess cavity and from the appendix showed multiple tubercles formed with caseous necrosis, epithelioid cells and Langhan's giant cells. There were also dense diffuse polymorphonuclear lymphocytic infiltrations forming abscesses (Fig 2, H & E, $\times 150$).

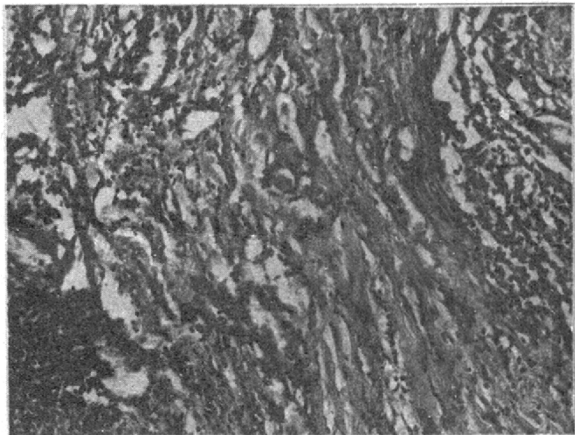


Fig 2 — Showing an Epithelioid Cell Granuloma on the Left Hand Corner of the Microphotograph with Langhan's Giant Cell and Minimal Caseous Necrosis in the Centre

Course—Antituberculosis treatment with rifampicin 450 mg, INH 300 mg and ethambutol 800 mg was started and on review after 6 months his general condition was found to be good and he had no complain.

Discussion

The incidence of tuberculous appendicitis in all appendicectomies performed in general hospitals varies from 0.1% to 3%². Majority of them

were not known tuberculous patients. The incidence among patients with known tuberculosis ranges from 1.5% to 30%. Primary tuberculous appendicitis with no detectable focus elsewhere is uncommon, although a number of cases has been reported¹. It has been suggested that the most likely mode of infection in such cases is ingestion of food such as cheese, butter or milk which may be contaminated with tubercle bacilli².

Clinically 3 types of tuberculous appendicitis have been described³: (1) Chronic disease with low grade pain, occasional vomiting and diarrhoea and findings of tenderness, guarding of muscles and a mass in the right iliac fossa. (2) Acute disease indistinguishable from pyogenic appendicitis until histology is performed. (3) Latent type discovered incidentally where the organ is unchanged macroscopically⁴.

The present case appears to be an acute exacerbation of a chronic tuberculous appendicitis.

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