Colonic tuberculosis

G. S. VENABLES*
B.M., M.R.C.P.

P. S. J. B. RANA
B.M., F.R.C.S.

Newcastle General Hospital, Newcastle upon Tyne

Summary

A case of tuberculosis of the colon is described. Attention is drawn to the similarity between this and other inflammatory diseases of the bowel. Colonic tuberculosis is now a rarity even where mycobacterial infection is endemic, and may mimic other inflammatory diseases of the bowel with important consequences for treatment and prognosis. Such a case is now described.

Case report

A male biology teacher of 29 years became unwell in February 1976 with an influenza-like illness. He remained listless with loss of appetite until his admission in June the same year. One month before presentation he had an episode of vomiting lasting one week and at the same time experienced drenching night sweats. Shortly after, he began to pass frequent loose motions associated with excessive flatulence, short lived non-colic abdominal pain and abdominal distension. There were no other symptoms and in particular no respiratory complaints. He had no history of exposure to tuberculosis and at the age of 14 years had been given B.C.G. He had never knowingly consumed unpasteurized milk, and his only overseas travel was to Switzerland in his early 'teens.

On examination his temperature was 39°C. He had two spider naevi and palmar erythema. His abdomen was distended and tense, the liver being palpable 3 fingers' breadths below the costal margin. There was a firm mobile mass in the right iliac fossa and ascites was detected. There was no lymphadenopathy and there were no abnormal signs in the respiratory system.

Investigations included: Hb 11.2 g/dl, WBC $12 \times 10^9/l$, ESR 38 mm/hr, Bilirubin 16 $\mu\text{mol/l}$ (0.6 mg/100 ml); aspartate transaminase 47 i.u./l; alkaline phosphatase 130 i.u./l; total protein 68 g/l; albumin 31 g/l. Cultures of ascitic fluid, stool, blood, urine, liver biopsy, gastric washings and sputum were, with one exception, negative. A

Mantoux test with 10 tuberculin units (TU) produced an area of induration 10 mm in diameter. Sigmoidoscopy and colonoscopy revealed mild inflammatory changes which were also present on biopsy. Liver scan (^{99}Tc) and 2 liver biopsies were normal. Barium enema and a later performed barium follow through examination revealed 2 irregular strictures in the ascending and transverse colon, the appearance of which suggested granulomatous colitis (Fig. 1). Chest X-ray was normal and a plain abdominal film showed only a single calcified lymph node.

He was thought to have Crohn's disease and his temperature settled with prednisone, salazopyrin and metronidazole. Six weeks after admission he again became febrile and re-accumulated his ascites. Laparotomy yielded a large quantity of brown ascitic fluid from which was initially grown a non-haemolytic *Streptococcus*. There was a fibrinous exudate covering most of the small and large bowel, especially the ascending and sigmoid colon. There were large lymph nodes in the mesentery, and 2 chronic strictures were seen corresponding to those reported on radiological examination. He had a right hemicolectomy and made an uneventful post-operative recovery. Histological examination (Fig. 2) revealed many granulomata involving mucosa, muscularis and serosa, being composed of epithelioid cells, Langhans giant cells and areas of caseation in which acid and alcohol-fast bacilli were seen. *Mycobacterium bovis* was subsequently grown from lymph nodes and ascitic fluid. He was treated with streptomycin, isoniazid and ethambutol, making a slow recovery with gradual weight gain and loss of his ascitic fluid.

Discussion

Primary colonic tuberculosis is uncommon, even where the disease is endemic (Tandon and Prakash, 1972), and may present without evidence of pulmonary or other organ involvement. Colonic lesions include ulcerative and hypertrophic forms, the latter occurring in isolation as in this case (Abrams and Holden, 1964). Although no longer a common infecting organism, *M. bovis* is mainly associated

* Present address: Department of Neurology, Royal Victoria Infirmary, Newcastle upon Tyne.

FIG. 1. Barium follow-through examination showing colonic stricture formation.

FIG. 2. Giant cell granulomata involving colonic mucosa (HE, $\times 200$).

with extrapulmonary disease (Wales, Mumtaz and MacLeod, 1976) the authors are unable to find recent reports of this organism causing colonic disease. Ascites may help to distinguish tuberculosis from Crohn's disease by its presence (Editorial, 1977). Radiological features are similar although scar formation, strictures and ulceration may be more pronounced in the former (Burke and Zafar, 1975). Granulomata are present in both conditions and histologically the diagnosis requires that caseation and acid and alcohol-fast bacilli be present in tuberculosis (Tandon and Prakash, 1972). The source of infection here remains elusive although the authors assume that it came from milk or other contaminated food.

Acknowledgments

We would like to thank Dr C. Strang and Mr C. W. Venables for allowing us to report this case, Dr J. Selkon

for bacteriological advice, Dr A. Morley for interpreting the histology and the Department of Photography and Teaching Aids Laboratory in the University of Newcastle upon Tyne for the illustrations.

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