

References

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MEDICAL MEMORANDA

Miliary Crohn's Disease

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The macroscopic features of Crohn's disease are well known. The affected bowel is thickened, soggy, and oedematous, the serosa is a blotchy red, and the mesentery contains numerous hyperplastic nodes (Crohn *et al.*, 1932).

The term "miliary Crohn's disease" was used by Heaton *et al.* (1967) in three cases of Crohn's disease in which at laparotomy the diagnosis appeared to be tuberculous peritonitis or enteritis. The recognition of this unusual appearance is of great practical importance if correct treatment is to be given. A similar case is described below.

Case Report

A 20-year-old chef presented in March 1970 complaining of tiredness and of feeling generally unwell. He thought he had lost weight. Examination showed no abnormality, and the haemoglobin, white count, E.S.R., constituents of the urine, and the chest x-ray picture were normal.

Five months later he developed colicky upper abdominal pain associated with acid regurgitation and borborygmi. Questioning elicited that he had occasional loose stools and a sensation of abdominal fullness. Examination showed the loss of 3 kg in weight since his previous examination but was otherwise uninformative. Barium-meal examination showed dilatation of the second part of the duodenum; barium-enema appearances were normal.

He continued to lose weight, and more extensive investigations showed: haemoglobin 13.0 g/100 ml; W.B.C. 7,100/mm³; E.S.R. (Westergren) 3 mm in one hour; serum urea 22 mg/100 ml, Na⁺ 137 mEq/l, K⁺ 3.7 mEq/l, Cl⁻ 100 mEq/l, HCO₃⁻ 29 mEq/l; protein-bound iodine 5.4 µg/100 ml; serum albumin 3.1 g/100 ml; serum iron 25 µg/100 ml; total iron-binding capacity 186 µg/100 ml; xylose excretion 2.1 g/5 hr (5 g dose); faecal fat 6 g/24 hr; serum folate 2 ng/ml; serum vitamin B₁₂ 775 pg/ml; pentagastrin test, normal acid output; Synacthen test, normal result; faecal occult blood, intermittently positive.

A further barium-meal examination showed generalized distension of the duodenum and jejunum with multiple "thumb-print" filling defects along the mucosal surface. The appearances were thought to suggest tuberculous enteritis or a reticulosis. Laparotomy showed numerous enlarged yellow fleshy nodes throughout the mesentery. The entire small bowel was thickened and covered with distended lacteals and miliary tubercles, the latter lying principally in the line of the lacteals. Along the whole length of the mesenteric border of the bowel thickened areas were palpable. The large bowel was also covered in a pannus of vessels. The appearance at

operation was thought to suggest tuberculous peritonitis, and a mesenteric node and a specimen of jejunum were taken for biopsy.

Microscopical examination of the lymph node showed tubercloid granulomata without caseation. The jejunal mucosa showed multiple superficial stellate ulcers with scalloped edges. The serosa was finely granular. Sections of the jejunal specimen showed lymphoid hyperplasia in the base of the ulcers, with scattered non-caseating tubercles throughout the jejunal wall. No acid-alcohol-fast bacilli were seen after prolonged examination, and subsequent culture and animal inoculation proved negative. Postoperative Mantoux testing and bone marrow smears showed no abnormality. The patient was treated with corticosteroids, and his symptoms settled. During the next 12 weeks he gained 4 kg in weight. Barium-meal examination at this time showed normal proximal jejunum, but the lower small bowel appearances were distorted by adhesions.

Comment

The distinction between Crohn's disease and tuberculous enteritis is of obvious practical importance but can be very difficult to achieve. Early descriptions of Crohn's disease (Crohn *et al.*, 1932; Blackburn *et al.*, 1939) included the presence of minute pale nodules on the serosal surface resembling those seen in tuberculosis. Later reports (Van Patter *et al.*, 1954; Pollock, 1958) made only brief reference to serosal tubercles, and the presence of these tubercles are not mentioned in standard textbooks of surgery or medicine.

Tuberculous disease of the bowel is becoming uncommon in the United Kingdom and most granulomatous lesions of the ileocaecal area are now known to be due to Crohn's disease (Lee and Roy, 1964), but diagnostic mistakes still occur in both directions. Dyer and Dawson (1970) found tuberculosis diagnosed in error in 7% of their cases of Crohn's disease, and Brenner *et al.* (1970) described a case of ileocaecal tuberculosis diagnosed initially as Crohn's disease. Heaton *et al.* (1967) reviewed the differential features between Crohn's disease and tuberculosis as found at operation. It is worth noting that in miliary Crohn's disease the tubercles coalesce along the distended lacteals and this was a prominent feature in the present case. Heaton *et al.* also speculated whether miliary Crohn's disease represents an early stage of Crohn's disease. Prompt treatment in the present case resulted in some improvement in the proximal jejunum, but the follow-up period was so short that worthwhile comment is not possible.

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