Research Paper

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Isolated Primary Tuberculosis Of The Sigmoid Colon : A Case Report

Medical Science

KEYWORDS : Tuberculosis; Sigmoid colon; Colonic cancer

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ABSTRACT

Tuberculosis of the sigmoid colon is a rare disorder. Intestinal tuberculosis is most frequent in the ileocecal area. In the absence of pulmonary or ileocecal involvement, colonic tuberculosis may be difficult to differentiate from neoplasm or Crohn's disease by symptomatic, radiological and endoscopically means. Hence, we report a case of intestinal tuberculosis in the sigmoid colon, which is rare and was mistaken for colonic cancer during colonoscopy, with non-specific results on biopsy. The diagnosis was finally made when the histopathology report was received.

Introduction :

Intestinal tuberculosis is a diagnostic challenge, especially when active pulmonary infection is absent. It is most frequent in the ileocecal area, followed by the ascending colon, transverse colon, duodenum, stomach, and sigmoid colon, in descending order. Tuberculosis of colon forms only 3% of intestinal tuberculosis and tends to be segmental and usually obstructive symptoms dominate(1). Although colonoscopy and biopsy is an important diagnostic modality, the features are variable and the distinction from other conditions of the colon, especially Crohn's disease and cancer, may be impossible without surgical resection. Hence, we report a case of intestinal tuberculosis in the sigmoid colon, which is rare and was mistaken for colonic cancer during colonoscopy, with non-specific results on biopsy. The diagnosis was finally made when the histopathology report was received. The diagnostic dilemma of colonic TB is discussed.

Case Report :

A 43 years old male patient was admitted in the surgery ward with features of large bowel obstruction for 3 days. There was a history of generalised weakness, loss of appetite and loss of weight for 1month. There was no history of fever or bleeding per rectum, no history of pulmonary tuberculosis or contact with a known tuberculosis patient. On examination the patient was found to be anaemic and dehydrated. Abdomen was distended, slightly rigid, bowel sounds were active, no palpable mass could be appreciated. Blood reports show ESR of 28mm/1st hour and a serum CEA level of 2mcg/L. His chest x-ray was normal, erect x-ray abdomen showed air fluid levels, but computed tomography (CT) scan of the abdomen revealed a focal 7cm long segment of bowel thickening in the proximal sigmoid colon and fine diverticulum like structures noted in the distal part of descending colon. Colonoscopy revealed a proliferative growth involving whole circumference of the proximal sigmoid colon which was almost occluding the lumen(fig.)

Fig: Endoscopic photograph of sigmoid tuberculosis

Biopsy revealed inflammatory changes but no evidence of malignancy or granuloma. Despite negative colonoscopic biopsies, a provisional diagnosis of carcinoma sigmoid was made and he was prepared for left hemicolectomy. At operation, a firm mass 8 cm x 5 cm in the wall of the proximal half of sigmoid colon was found. The small bowel was entirely free of disease; there were no other lesions in the abdominal cavity. Hence, a left hemicolectomy was performed with a diversion colostomy and mucous fistula, and the specimen was sent for gross examination and histopathology. Histopathology revealed caseating granulomas colitis diagnostic of TB, with no evidence of malignant cells. Postoperative recovery was uneventful. The patient was put on multiple drug anti-tuberculous treatment starting from postoperative day 6 and is currently on regular follow-up.

Discussion :

Tuberculosis of the ileocaecal region is a common entity (2). The apparent affinity of the tubercle bacillus for lymphoid tissue and areas of physiologic stasis facilitating prolong contact between the bacilli and the mucosa may be the reason for ileum and caecum being the most common sites of the disease. But isolated tuberculous lesions of the colon without involvement of the small bowel are rare (3). About 3% of all patients with abdominal tuberculosis have isolated colonic tuberculosis(1). Tuberculosis of the colon tends to be segmental and obstructive symptoms dominate (4).The gross endoscopic findings of intestinal tuberculosis are mainly divided into three groups: multiple superficial ulcerative lesions (60%), hypertrophic lesions characterized as scars, fibrosis, and pseudotumors (10%), and mixed hypertrophic lesions accompanied by ileocecal hypertrophy and ulceration (30%) (5). Both the forms, ulcerative and hyperplastics may be seen in the colon.

Our patient presented with features of intestinal obstruction and probable pre-operative diagnosis was malignant lesion of the sigmoid colon. The diagnosis of isolated colonic tuberculosis can be quite difficult since there are no specific clinical presentations. Resection is the treatment of choice since hyperplastic lesions rarely respond to chemotherapy(3). For isolated tuberculosis of the colon, local colonic resection is adequate. But in our case we performed a left Hemicolectomy with apprehension of carcinoma colon.In the absence of pulmonary or ileocecal involvement, colonic tuberculosis may be difficult to differentiate from neoplasm or Crohn's disease by symptomatic and radiological means. This case highlights the ease with which colonic TB may be mistaken for colonic cancer and the dilemma of diagnosing it radiologically and endoscopically. The clinical features

of both these conditions are identical and, occasionally, only histopathology may provide the final diagnosis.

Colonoscopy and biopsy can, however, establish the diagnosis and prevent operative intervention(6). Breiter and Hajjar reported that antituberculous chemotherapy produced remarkable symptomatic, radiographic and endoscopic improvements and averted exploratory laparotomy(6).

Seong-Min Yu et al reported "A Case of Sigmoid Colon Tuberculosis Mimicking Colon Cancer" in July 2012 in an 80-year-old man who visited Bongseng Memorial Hospital, Korea. A colonoscopic biopsy was performed, and tuberculous enteritis with chronic granulomatous inflammation was diagnosed. He was put on anti tuberculous multidrug regimen for 9months and the the patient has completely recovered.

A Kumar, M Patodia, PK Pandove, VK Sharda reported a case of ascending colon TB which was mistaken for colonic cancer during colonoscopy, with non-specific results on biopsy in 2012, in Rajindra Hospital, Patiala, Punjab, India. A right hemicolectomy was performed with an ileo-transverse anastomosisThe diagnosis was finally made when the histopathology report was received following which he was started on anti-tuberculous therapy for 6 months.

Conclusion :

Primary segmental colonic tuberculosis is a rare condition and poses great difficulty in diagnosis. High index of suspicion, supported by radiological and colonoscopic investigations may lead to a diagnosis of colonic tuberculosis. However, occasionally, only laparotomy followed by tissue biopsy can lead to a definitive diagnosis. Segmental resection with colocolic anastomosis followed by antitubercular chemotherapy is the standard treatment of choice in colonic tuberculosis.

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