**Tubercular Colitis Masquerading as Ischemic Colitis: An Unusual Presentation**

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**Abstract**

Tuberculosis is a common clinical problem which can involve virtually any organ and mimic a multitude of clinical conditions. Colonic tuberculosis is a type of intestinal tuberculosis which involves the colon and mimics inflammatory bowel disease. Occasionally, it is also confused with colonic malignancy. We report the case of a young female who presented with abdominal pain, bleeding per rectum. Abdominal X-ray showed evidence of thumb-printing. A possibility of ischemic colitis was entertained. However, further investigation unraveled the presence of tubercular colitis. The patient improved with anti-tubercular therapy. Colonic tuberculosis can mimic a number of clinical entities and should be considered in differential diagnosis of colonic lesions in endemic areas.

**Keywords:** Abdominal tuberculosis, colon, colonic ischemia, inflammatory bowel disease, tuberculosis

**INTRODUCTION**

Colonic tuberculosis is defined as isolated involvement of the colon in the absence of ileal or ileo-cecal tuberculosis and may be multifocal in one-third of the cases.¹ Tobacco tuberculous colitis is a term often used to describe multifocal involvement of the colon which may mimic inflammatory bowel disease and may be diffuse colonic involvement occasionally.²⁻³ The colonoscopic appearances may include circumferential or transverse colonic ulcers, aphthous ulcers, pseudopolyps, stenosis or stricture, etc., Colonic tuberculosis is known to mimic inflammatory bowel disease, other infectious colitides (e.g., amoebic colitis), and colonic malignancy.⁴⁻⁵ However, we report a case in which the clinical findings and the abdominal roentgenogram was suggestive of ischemic colitis in a patient eventually diagnosed to have tubercular colitis.

**CASE REPORT**

A 26-year-old female patient presented to us with history of abdominal pain off and on for the past 3 months. The patients reported an increased severity of pain in the preceding 3 days before presentation. This was associated with the passage of blood per rectum and fever. The amount of blood had increased over the past 3 days. She had received anti-tubercular therapy (ATT) 4 years back for pulmonary tuberculosis. The patient had pallor, was tachypneic (respiratory rate: 28/min), had tachycardia (pulse: 110/min) with blood pressure of 108/70 mm of Hg. The abdominal examination revealed a vague lump with tenderness in the right iliac fossa. The patients hemoglobin was 6.6 g/dL, with leukocytosis (total leukocytes: 24,000/mm³) with elevated platelet count (587,000/mm³). The abdominal roentgenogram revealed prominent large bowel loops with thumb-printing [Figure 1]. Colonoscopy revealed diffuse ulcerations all over the colon [Figure 2] from the rectum till the cecum of varying morphology (linear, circumferential). The abdominal tomography showed diffuse thickening of the colonic wall, especially in the region of the terminal ileum and the cecum [Figure 3]. However, the visualized vessels were normal. Histology from the cecal biopsy suggested the presence of granuloma. Mantoux skin test was negative; however, chest roentgenogram revealed fibrotic changes possibly related to old pulmonary tuberculosis. The patient received 2 units of blood transfusion and was initiated on four drug ATT daily including rifampin, isoniazid, pyrazinamide.

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and ethambutol. The patient improved with defervescence of fever, and resolution of bleeding per rectum. She was discharged a week later. At 2 months of ATT, the patient was doing fine with 5 kg gain of weight and resolution of ulcers on colonoscopy. Therefore, the diagnosis was established on the basis of the presence of granuloma on histology and the resolution of ulcers with treatment (response to therapy). Further, in the absence of microbiological evidence (culture or polymerase chain reaction), it is not possible to comment on the species of the organism.

**Discussion**

Intestinal tuberculosis is an important clinical form of abdominal tuberculosis and is difficult to diagnose because of low microbiological positivity. Response to ATT is often used as an important criterion to establish the diagnosis, especially in cases where there is a diagnostic confusion with other entities.\(^6\) Colonic tuberculosis usually manifests as abdominal pain, weight loss, fever, altered bowel habits, and bleeding per rectum. While colonic tuberculosis most commonly involves the cecum and the ascending colon, the lesions could be ulcers, strictures, polyps, etc.\(^7,8\) The two reports by Singh et al. and Mukewar et al., reporting experience of colonic tuberculosis from different parts of India and from time periods which were two decades apart, suggest that the clinical presentation, and endoscopic findings are similar in these two reports.\(^7,8\) The exact frequency of colonic tuberculosis among overall cases of tuberculosis has not been reported. However, in a recent report, gastrointestinal tuberculosis has been reported to be the third most common site of extra-pulmonary tuberculosis (EPTB) accounting for 12.8% of all EPTB cases.\(^9\) Further, isolated colonic tuberculosis is not very frequent and possibly accounts for <10% of all cases of intestinal tuberculosis. However, if ileocecal involvement is also considered the frequency is likely to be much higher as the ileocecal area is the most common site of involvement in intestinal tuberculosis.\(^1\) Intestinal tuberculosis is often confused with Crohn’s disease wherein the clinical, endoscopic, histological, and radiological findings are extremely similar. However, intestinal tuberculosis can mimic other conditions such as ulcerative colitis, amoebic colitis, and malignancy. Occasionally, colonic cancer can coexist with colonic tuberculosis, and the clinicians should be aware of the possibility to avoid mismanagement. In a previous report of two cases of colonic tuberculosis, underlying colonic malignancy confounded the clinical picture as it was reported to coexist with tuberculosis of the same site.\(^10\) In our patient, the sudden worsening of abdominal pain, significant hematochezia, colonic ulcers, and radiological evidence of thumbprinting suggested the possibility of ischemic colitis. However, the histology and history of previous pulmonary tuberculosis pointed to the diagnosis of colonic tuberculosis. Eventually, the clinical and endoscopic improvement on ATT confirmed the diagnosis.

Although ischemic colitis is often believed to be a disease of the elderly, it can occur in young age as a result of an embolic phenomenon or secondary to conditions such as vasculitis, fibromuscular dysplasia or disseminated intravascular coagulation. Although thumbprinting is often described with ischemic colitis, the finding merely represents mucosal edema and is therefore non-specific. The finding has been
reported in inflammatory bowel disease, pseudomembranous colitis, diverticulitis, and submucosal hemorrhage. However, it has probably not been described previously with colonic tuberculosis.

Therefore, colonic tuberculosis is an important clinical entity for clinicians in the tropical world which may mimic other diseases. The index of suspicion for this diagnosis should remain high even when other possibilities are being considered.

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Conflicts of interest
There are no conflicts of interest.

References
1. Sharma MP, Bhatia V. Abdominal tuberculosis. Indian J Med Res 2004;120:305-15.
2. Dogan ÜB, Akin MS, Yalaki S, Demirtürk P. A case of tuberculous colitis mimicking Crohn’s disease. Turk J Gastroenterol 2014;25 Suppl 1:260-1.
3. Ahuja SK, Gaiha M, Sachdev S, Maheshwari HB. Tubercular colitis simulating ulcerative colitis. J Assoc Physicians India 1976;24:617-9.
4. Lakhe P, Khalife A, Pandya J. Ileoacaeal and transverse colonic tuberculosis mimicking colonic malignancy-A case report. Int J Surg Case Rep 2017;36:4-7.
5. Pai SA. Amebic colitis can mimic tuberculosis and inflammatory bowel disease on endoscopy and biopsy. Int J Surg Pathol 2009;17:116-21.
6. INDEX-TB Guidelines: Guidelines on Management of Extrapulmonary Tuberculosis of India; 2016. p. 11-4.
7. Singh V, Kumar P, Kamal J, Prakash V, Vaiphei K, Singh K. Clinicocolonoscopic profile of colonic tuberculosis. Am J Gastroenterol 1996;91:565-8.
8. Mukewar S, Mukewar S, Ravi R, Prasad A, S Dua K. Colon tuberculosis: Endoscopic features and prospective endoscopic follow-up after anti-tuberculosis treatment. Clin Transl Gastroenterol 2012;3:e24.
9. Cherian JJ, Lobo I, Sukhlecha A, Chawan U, Kshirsagar NA, Nair BL, et al. Treatment outcome of extrapulmonary tuberculosis under Revised National Tuberculosis Control Programme. Indian J Tuberc 2017;64:104-8.
10. Chakravartty S, Chattopadhyay G, Ray D, Choudhury CR, Mandal S. Concomitant tuberculosis and carcinoma colon: Coincidence or causal nexus? Saudi J Gastroenterol 2010;16:292-4.