

Tuberculosis Of The Ascending Colon

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Citation

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Abstract

Tuberculosis of the gastrointestinal tract is the sixth most frequent site of extra-pulmonary involvement. Colonic tuberculosis is a rare entity, the incidence of which ranges between 3-9% of all abdominal tuberculosis. Abdominal pain and lower gastrointestinal bleeding are the common presentation of this disease. High index of suspicion, supported by radiological and endoscopic investigations, and exploratory laparotomy with histopathological examination can lead to definitive diagnosis of this rare condition. We report a case of ascending colon tuberculosis with stricture. Right hemicolectomy was the procedure advocated followed by anti-tubercular therapy.

INTRODUCTION

Infection of peritoneum, hollow or solid abdominal organs by *Mycobacterium* constitutes abdominal tuberculosis. After lymphatics, genitourinary system, bone & joint, miliary tuberculosis and meninges, the gastrointestinal tract is the sixth frequent site of extra-pulmonary tuberculosis.

Tuberculosis bacteria reach the gastrointestinal tract via haematogeneous spread, ingestion of infected sputum or direct spread from infected contiguous lymph nodes and fallopian tubes. Due to physiological status, increase rate of fluid and electrolyte absorption, minimal digestive activity and an abundance of lymphoid tissue, the ileocaecal region is the most common site of gastrointestinal tuberculosis. The frequency of bowel involvement decreases as one proceeds both proximally and distally from the ileocaecal junction.^{1, 2}

CASE REPORT

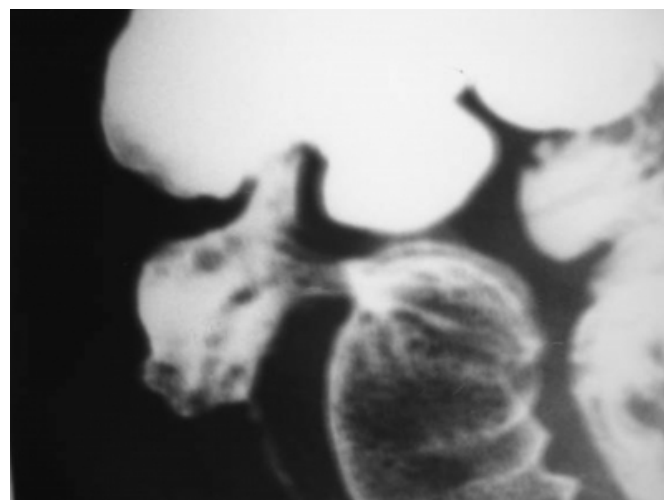
A 45-year-old male presented with pain in the right lower abdomen, loss of appetite and on and off low-grade fever since 2 months. He also had history of constipation since 1 month. He had taken treatment for pulmonary tuberculosis 2 years before. Vital parameters at the time of admission were within normal limits. Examination of the abdomen revealed a non-tender, fixed firm lump of a size of 4x4 cm in the right iliac fossa. Chest examination was within normal limits.

Investigations revealed an hemoglobin of 11 gm/dl, a total leukocyte count of 3810/cu.mm and a differential leukocyte count of 76% neutrophils, 22% lymphocytes, and 2% eosinophils. Renal function tests and liver function tests were within normal limits. Chest radiography showed an old

healed tubercular lesion in the apex of left lung. Sonography of abdomen revealed a thickening in the ascending colon. Fine needle aspiration cytology of the mass was inconclusive. Barium meal and follow-through revealed a narrowed segment between caecum and ascending colon along with a contracted caecum. (FIG-1)

Figure 1

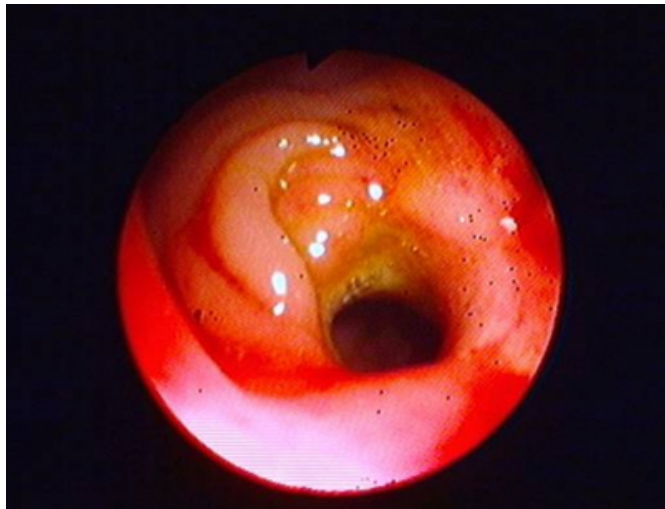
Figure 1: Barium Meal And Follow-Through Revealing A Narrowed Segment Between Caecum And Ascending Colon Along With A Contracted Caecum.



Colonoscopy revealed a smooth stricture in the ascending colon. (FIG-2)

Figure 2

Figure 2: colonoscopy revealing a smooth stricture in the ascending colon.



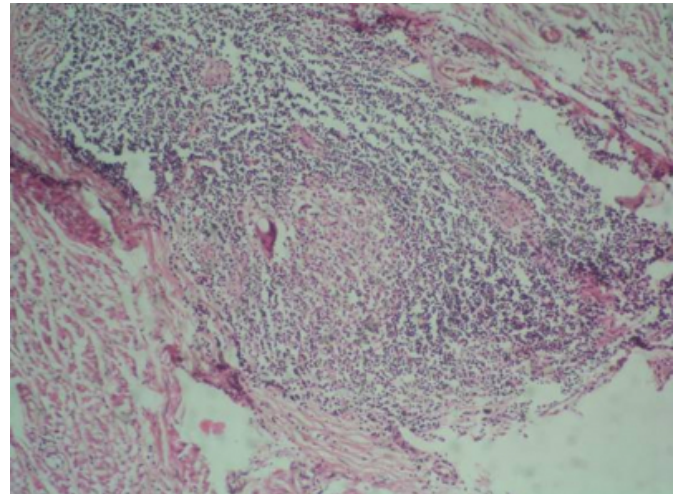
Histopathology study from the colonoscopic biopsy suggested moderate colitis.

Exploratory laparotomy revealed a stricture in the caecum and ascending colon junction. Right hemicolectomy with primary ileo-transverse colon anastomosis was the procedure adopted. The patient had an uneventful post-operative recovery.

Histopathological study showed partial ulceration at the stricture site. There were numerous epithelioid granulomas in the submucosa as well as in the muscle coat with nucleated giant cells and dense lymphocytic infiltrate. Lymph nodes dissected along with the right hemicolectomy specimen also showed similar histopathological findings. These features were suggestive of tuberculosis of the ascending colon. (FIG-3)

Figure 3

Figure 3: histopathological study showing epithelioid granuloma in the submucosa as well as in the muscle coat with nucleated giant cells and dense lymphocytic infiltration suggestive of tuberculosis of the ascending colon.



The patient was discharged with the initiation of anti-tubercular therapy.

DISCUSSION

On reviewing the literature, the incidence of isolated colonic tuberculosis was reported in the range of 3-9% of all cases of abdominal tuberculosis. Sigmoid, ascending and transverse colon are the sites commonly involved. In one third of patients, multifocal involvements were also described. ^{1, 3, 4, 5, 6, 7}

Inflammatory stricture, hypertrophic lesions resembling polyp or tumor, segmental transverse ulcers and segmental or diffuse colitis are the pathological presentations of colonic tuberculosis. ⁷

The median duration of symptoms is usually less than one year. Pain predominantly in the lower abdomen is the commonest symptom of presentation. In one-third of patients lower gastrointestinal bleeding is present. Fever, anorexia, weight loss and altered bowel habit are the other manifestations. Obstruction, massive bleeding and rarely perforation are the complications reported. ^{5, 7, 8, 9}

Barium enema may suggest segmental colonic tuberculosis. Computed tomography scan can detect circumferential wall thickening, narrowing of the lumen and ulceration in the involved colon. Colonoscopy is an excellent tool to diagnose this rare entity. Mucosal nodules of variable sizes with intervening ulcers are pathognomonic. Lesions may mimic ulcerative colitis and carcinoma. Colonoscopic biopsies for

histopathological confirmation and culture to yield acid-fast bacilli stains can establish the diagnosis in over 60% of cases of colonic tuberculosis. 7, 10, 11

Conventional antitubercular therapies have got a definitive role in cases of colonic tuberculosis. Surgical procedures recommended are usually conservative in the form of limited resection and anastomosis. However, a period of pre-operative drug therapy is still controversial. 1

Isolated colonic tuberculosis is a rare entity that requires high index of suspicion, radiological and endoscopic guidance and histopathological confirmation for a definitive diagnosis.

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