Rectal Tuberculosis Simulating Malignancy — A Case Report and Review

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Abstract

Tuberculosis is known to involve any segment of gastrointestinal tract, however involvement distal to ileocaecal junction is rare. We report a case of rectal tuberculosis, which simulated malignancy, clinically and radiologically. Histopathology confirmed the diagnosis. Though treated with antitubercular treatment, patient had to be subjected to definitive surgical intervention.

Introduction

Tuberculosis can affect any part of gastrointestinal tract (GIT) from the oesophagus to the anal canal. Though tuberculosis of GIT is frequently encountered in tropical countries, tuberculosis of bowel distal to ileocaecal junction is rare and is rarely considered as a differential diagnosis of rectal stricture. Gupta et al have reported an incidence of 4.5% of rectal tuberculosis. Commonly rectal tuberculosis presents as carcinoma, however it may present with haematochezia, intestinal obstruction. We report a patient with rectal tuberculosis who developed intestinal obstruction due to rectal growth stimulating malignancy.

Case Report

A 40 year old male presented to us with constipation on and off with bleeding per rectum since 2 months. He gave no history of obstipation, abdominal distension, and constipation alternating with diarrhoea. He had no history of tuberculosis or any medical illness.

On examination, he was average built and nourished with pulse 82/min and blood pressure of 120/80 mm Hg. On palpation, abdomen was soft with no lump palpable. Bowel sounds were normal. Per rectal digital examination revealed hard, circumferential growth in rectum about 6 cm from anal verge admitting only the tip of the finger. Plain radiograph of chest and abdomen were normal. Computed tomography of abdomen and pelvis (CT scan) revealed circumferential growth in rectum extending upto rectosigmoid junction with normal liver as seen in Fig. 1. Punch Biopsy were taken and sent for histopathological examination. As patient was being investigated, he developed acute intestinal obstruction, which did not respond to conservative management and had to be subjected to sigmoid loop colostomy. Histopathology revealed granuloma in

Fig. 1: Computed tomography of the pelvis showing circumferential thickening of the rectum with mucosal irregularity.
Patient was started on 4-drug antitubercular treatment, which was given for 3 months, and was kept under follow-up.

Patient still complained of bleeding per rectum and repeat clinical examination and CT scan pelvis revealed similar picture and hence he was subjected for abdominal exploration. Intraoperative, a hard circumferential thickening was noted from sigmoid extending to middle third of rectum infiltrating the para-rectal tissues. Rest of the bowel was normal with no tubercules, strictures and no lymphadenopathy. Resection of involved rectum and sigmoid colon with a stapled colo-rectal anastomosis was done. Patient was started on orals on 4th postoperative day and discharged on the 10th day on antitubercular chemotherapy. He is totally asymptomatic at follow-up of 6 months. Histopathology, confirmed the diagnosis.

Discussion

Tuberculosis of gastrointestinal tract may be primary or secondary to a primary focus elsewhere.4 Primary intestinal tuberculosis is usually because of bovine tubercle bacilli through milk.5 Decreased incidence of primary tuberculosis has been seen due to pasteurisation of milk. Bockus et al have reported 70% of cases of primary infection with tuberculosis to have hyperplastic or hypertrophic forms while secondary lesions to be of ulcerative types in gastrointestinal tract.6

Tuberculosis of GIT can involve any portion of bowel extending from oesophagus to anus however, involvement of bowel distal to ileocaecal junction is infrequently seen.2 In addition, Davis has stated that hyperplastic lesions are probably the rarest in rectal lesions.7 However, Gupta et al have reported an incidence of 4.5% (three cases) of rectal tuberculosis.3

Clinically, patients with rectal tuberculosis may present as growth and simulate carcinoma. These patients may present with bleeding per-rectum, constipation, alternating with diarrhoea, intestinal obstruction or pain while passing stools.3,4

Rectal TB can present with annular stricture or with ulceration of mucosa with fibrosis. Its radiological and endoscopic appearances may be extremely similar to malignant rectal lesion and only biopsy can clinch the diagnosis.4 Our patient was also diagnosed as rectal carcinoma on clinical and radiological grounds. However, histopathology proved it to be rectal tuberculosis.

Antitubercular drugs have changed the dismal outlook for patients with secondary tuberculous enteritis.5 Chemotherapy also has made surgery safe and often curative. Many reports however suggest that the hypertrophic form of gastrointestinal tuberculosis do not respond to drug therapy.5 Surgical treatment may be required if: a) Stenosis persists after 3 to 6 months of antitubercular treatment. b) It is difficult to differentiate from malignancy. c) Malignancy and tuberculosis coexist.1,4

Our patient was treated with four drug antitubercular drugs, which did not show any radiological change and hence was subjected to resection.

In summary, tuberculosis of rectum can

![Fig.2: Photomicrograph of the rectal biopsy showing epitheloid granuloma in the rectal submucosa.](image)
simulate malignant both clinically and radiologically but biopsy can confirm diagnosis.

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References