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Rectal Tuberculosis Mimicking Rectal Cancer

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ABSTRACT

In recent years, tuberculosis has had a significant rise, caused mainly by the epidemic of acquired immunodeficiency syndrome. The anorectal tuberculosis is a very rare presentation. Herein, we presented a 67-year-old man who has had renal transplantation and presented with hematochezia and painful defecation since 6 months before. Biopsy was taken from the lower rectal ulcerated lesion. Histopathology revealed granulomatous lesion in the submucosa and presence of acid fast bacilli in Ziel-Nelson staining. The involvement of rectal wall without any other primary sites of tuberculosis showed the primary nature of rectal tuberculosis.

Keywords: Rectal diseases, Tuberculosis, Hematochezia

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INTRODUCTION

Tuberculous involvement of the rectum may cause changes which are indistinguishable from malignancy on clinical examination and imaging studies. Gupta, et al, have reported an incidence of 4.5% of rectal tuberculosis among all gastrointestinal tract tuberculosis.(1), Early recognition of rectal tuberculosis is of utmost importance, as anti-tuberculous chemotherapy is curative and obviates need for surgery. Herein, we reported on a patient with rectal tuberculosis who developed hematochezia simulating rectal malignancy.

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CASE REPORT

A 67-year-old non-addict man, presented with hematochezia for six months. He had painful defecation and a significant weight loss of eight kg during six moths. He had history of renal transplantation five years before and was under treatment with prednisolone and cyclosporine. There was no positive family history of tuberculosis. Rectal examination revealed a large, friable, ulcerated rectal mass, two cm from the anal verge causing circumferential luminal narrowing which was later confirmed on proctoscopy. Computed tomography (CT) of abdomen and pelvis revealed infiltration of rectal wall. Based on the clinical examination, CT and rectosigmoidoscopic findings (Fig 1), a provisional diagnosis of rectal carcinoma was made. His chest roentgenogram

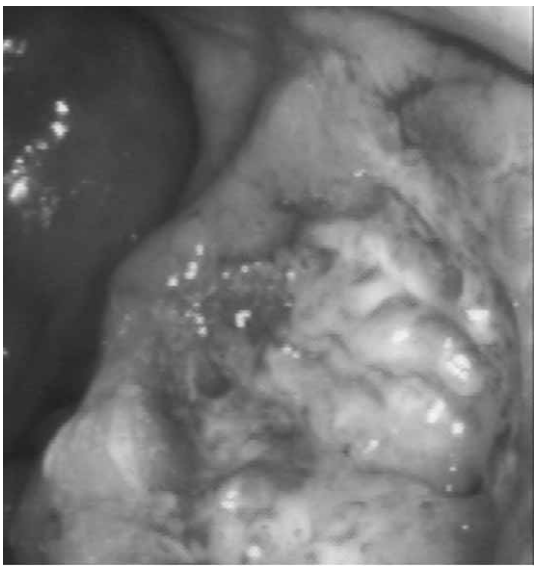

Figure 1. Endoscopic view of rectal tuberculosis mimicking rectal malignancy

was normal. Total colonoscopy was done which was normal except for a 2×3 cm ulcerative mass lesion two cm above the anal verge. Biopsy of the mass yielded Langhans granulomas with no evidence of malignancy. The presence of acid-fast bacilli in Ziel-Nelson staining, confirmed the diagnosis of tuberculosis (Fig 2).

DISCUSSION

Puri, *et al.*(2) in his report of eight patients with isolated rectal tuberculosis, showed that 88% of patients presented with hematochezia, 75% presented with constitutional symptoms and 37% with constipation. Most of the patients had a tight stricture within 10 cm of the anal verge with absence of perianal disease. In endemic areas, the lower gastrointestinal bleeding is attributed to tuberculosis in 3%-4% of instances.(3), Since tuberculosis causes obliterative endarteritis, massive rectal bleeding associated with colonic tuberculosis is rare.(4)

Tuberculosis of gastrointestinal tract may be primary or secondary.(5), Primary intestinal tuberculosis comprises less than 2% of cases of abdominal tuberculosis.(2), Bockus, *et al.* reported that 70% of patients with primary gastrointestinal tuberculosis have hyperplastic or hypertrophic lesions while secondary lesions are mainly ulcerative types.(6)

The intestinal lesions can grossly be categorized as ulcerative (60%), hypertrophic (10%), and ulcerohypertrophic (30%) types. The ulcerative type is characterized by multiple superficial ulcers. Clinical course of this type is virulent. Hypertrophic type contains scarring, fibrosis, and pseudotumor lesions. Ulcerohypertrophic is an inflammatory mass presenting mainly around the ileocecal valve with thickened and ulcerated intestinal walls. The ulcerohypertrophic form is more commonly seen in ileocecal tuberculosis.(7)

Tuberculosis of gastrointestinal tract can involve any portions of bowel extending from esophagus to

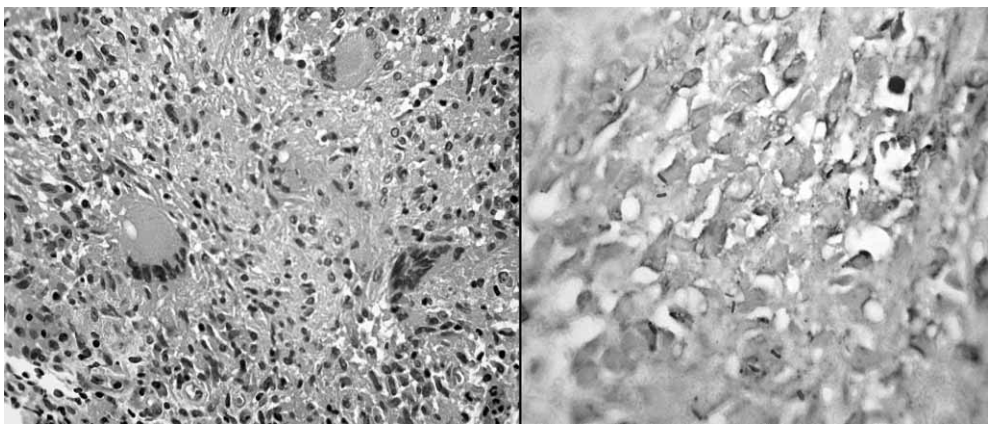

Figure 2. Non-caseating granuloma (left) with acid-fast bacilli (right)

anus. However, involvement of bowel distal to ileocaecal junction is infrequently seen.(3), Davis believed that hyperplastic lesions are probably the rarest rectal lesions.(8)

Clinically, patients with rectal tuberculosis may present as mass which simulates carcinoma. These patients may present with rectal bleeding, constipation alternating with diarrhea, intestinal obstruction or pain while passing stools.(4,5)

Rectal tuberculosis can present with annular stricture or with ulceration of mucosa and fibrosis. Its radiologic and endoscopic appearances may be extremely similar to malignant rectal lesions and only biopsy can make the correct diagnosis.(5), Our patient was also first diagnosed as rectal carcinoma on clinical and colonoscopic view. However, histopathologic study proved it to be rectal tuberculosis. The patient is now under the treatment with four-drug anti-tuberculosis regimen.

In summary, tuberculosis of rectum can simulate malignancy both clinically and radiologically but biopsy can confirm the diagnosis.

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