

Rectal Tuberculosis - A Complete Review

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ABSTRACT

Tuberculosis (TB) is a communicable disease caused mainly by *Mycobacterium tuberculosis* and its most frequent location is lung. Tuberculosis which affects the rectum is a rare extra-pulmonary sort of the disease that needs recognition because it requires specific treatment. Clinical and endoscopic presentations of intestinal TB are often almost like those of other diseases, like neoplasias and regional enteritis. Therefore, a high level of suspicion is required, as well as the performance of microbiologic studies, to confirm the diagnosis. Tuberculosis which affects the rectum is called rectal tuberculosis. Most common symptoms of rectal tuberculosis are abdominal pain, hematochezia, bowel habit change, episodes of rectal bleeding. The causative organisms of the disease include *Mycobacterium tuberculosis* and *Bovis*. Diagnosis of rectal tuberculosis is based on characteristic endoscopic appearance of lesions, histopathologic features of tuberculosis in biopsy/ resected material, and response to antitubercular therapy. It is still a great challenge even for experienced clinicians to diagnose the abdominal tuberculosis since it is an excellent mimicker that has unusual presentations. A high index of suspicion is important for reaching its diagnosis.

Keywords: Rectal tuberculosis, Tuberculosis, Rectal TB

INTRODUCTION

Tuberculosis (TB) is a communicable disease caused by *mycobacterium tuberculosis* and its most frequent location is lung. Tuberculosis which affects the rectum

is a rare extra-pulmonary sort of the disease that needs recognition because it requires specific treatment¹. Extrapulmonary TB can affect the lymph nodes, the genitourinary tract, the osteoarticular system, the meninges, and also the digestive tract. Digestive involvement can present at any segment of the alimentary canal, and most often affects the ileocecal region.

The clinical and endoscopic presentations of intestinal TB are often almost like those of other diseases, like neoplasias and regional enteritis (CD). Therefore, a high level of suspicion is required, as well as the performance of microbiologic studies, to confirm the diagnosis.

RECTAL TUBERCULOSIS

Tuberculosis affecting the rectum is called rectal tuberculosis. Most common symptoms of rectal tuberculosis are abdominal pain, hematochezia (a condition in which blood is passed through anus, usually in or with stools), bowel habit change, episodes of rectal bleeding, as well as fatigue, anorexia, unquantified weight loss, and a sensation of fever². In addition, intestinal obstruction, anorectal abscess and rectal fistula may also appear.

CAUSES AND MODE OF SPREAD

Main causes are *Mycobacterium tuberculosis* and *Bovis*. Various modes of spread include hematogenous spread from active pulmonary or miliary tuberculosis, swallowing of an infected sputum, ingestion

of contaminated milk or food, through lymph channels from infected nodes and contiguous spread from adjacent organs.

DIAGNOSIS

Diagnosis of rectal tuberculosis is based on characteristic endoscopic appearance of lesions, histopathologic features of tuberculosis in biopsy/resected material, and response to antitubercular therapy³. It is still a great challenge even for experienced clinicians to diagnose the abdominal tuberculosis. It is an excellent mimicker that has unusual presentations. A high index of suspicion is important for reaching its diagnosis⁴.

- **Barium examination:** A small bowel barium may show dilated loops, thickened folds or even stricture.
- **Colonoscopy:** May show ulcerative proliferative lesion involving part of rectal mucosa.
- **CT abdomen:** Computed tomography (CT) of the abdomen is a diagnostic imaging test. May reveal apparent wall thickening of the mild rectum.
- **Rectal biopsy:** A rectal biopsy is a procedure to remove a small piece of tissue from the rectum for examination it can detect the presence of Mycobacterium.

TREATMENT

WHO recommends 6-9 month course. Patient presents with complications and late presentations are also common in many cases. So, more often treatment for one year is required in these patients.

DRUG	DOSAGE (mg/kg)	ADVERSE EFFECTS
Isoniazid	5	PERIPHERAL NEURITIS, hepatitis, fever, rashes
Rifampicin	10	HEPATITIS, orange urine, skin rashes, flu syndrome, purpura
Ethambutol	15	OPTIC NEURITIS, Hyperurecemia
Pyrazinamide	25	Hepatotoxicity, hyperurecemia, arthralgia
Streptomycin	15	OTOTOXICITY, NEPHROTOXICITY

SECOND LINE DRUGS include

- Amikacin
- Kanamycin
- Para aminosalicylic acid
- Ciprofloxacin
- Ofloxacin
- Levofloxacin
- Clarithromycin
- Azithromycin
- Rifabutin

In drug resistance cases secondline drugs are needed.

Directly observed therapy widely known as DOT is a technique used to ensure the person receiving and taking all medications as prescribed and to monitor response to treatment. It is widely used to manage tuberculosis disease. If facilities for directly observed therapy are available, initial treatment is the same as in short-term therapy⁵.

CONCLUSION

Rectal tuberculosis is probably the rarest site of gastrointestinal involvement. Gastrointestinal tuberculosis occurs mostly as a complication of pulmonary tuberculosis and rarely as a primary entity. Tuberculosis which affects the rectum is called rectal tuberculosis. Most common symptoms of rectal tuberculosis are abdominal pain, hematochezia, bowel habit change, episodes of rectal bleeding, as well as fatigue, anorexia, unquantified weight loss, and a sensation of fever. Rectal tuberculosis is common in developing countries; however, its diagnosis is difficult as it mimics Crohn's disease or malignancy. Mostly after clinical suspicion all patients are subjected to barium enema or CT scan which most of the times mimics malignancy on appearance.

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