

# Manifest Secondary Rectal Tuberculosis due to Silent Concomitant Active Pulmonary Disease

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A 64-year-old male smoker, with a personal medical history of sigmoid diverticulosis and internal hemorrhoids was referred to our department for alternating bouts of diarrhea and constipation and a 2-week history of painless rectal bleeding. He associated fatigue, moderate fever, and nocturnal diaphoresis. Laboratory analysis showed an elevated level of C-reactive protein and mild iron deficiency anemia. There was no history of SARS-CoV-2 infection, and a previous PCR test was negative.

The patient underwent colonoscopy which revealed a central stenosis of the middle rectum with deep circumferential ulcerations covered with necrotic and hemorrhagic detritus (Fig. 1). Several differential diagnoses were considered, such as inflammatory bowel diseases, acute colitis (infectious, ischemic, toxic), tuberculosis or intestinal lymphoma.

Abdominal computerized tomography scan disclosed asymmetric circumferential wall thickening (17.5 mm) of the inferior and middle rectum (72.4 mm longitudinal extension) with fascial invasion of the perirectal adipose tissue. Thoracic scan revealed areas of ground-glass attenuation and air-space consolidation with bilateral peribronchovascular and perivascular distribution suggesting interstitial pneumonia (Fig. 2).

Histopathologic examination showed florid non-caseating tuberculous granulomas and inflammatory cells with a positive acid-fast bacillus (AFB) staining (Fig. 3, 20x). A final diagnosis of intestinal tuberculosis, ulcerative type was made. The patient was placed in respiratory isolation after a sputum assessment test and tuberculostatic therapy was initiated.

Gastrointestinal tuberculosis may be easily misdiagnosed as a mimicker of Crohn's disease [1, 2]. It should be considered in developing countries with endemic tuberculosis, while for

developed countries it will remain a diagnostic challenge (e.g., tuberculosis incidence rate in Romania is almost 30-fold higher than in the USA, 84 vs. 2.9/100.000) [3, 4]. Rectal involvement in tuberculosis is uncommon and poorly characterized [5]; however, it might be a cause of rectal strictures as highlighted by our case.

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**Conflicts of interest:** None to declare.

## REFERENCES

1. He Y, Zhu Z, Chen Y, et al. Development and validation of a novel diagnostic nomogram to differentiate between intestinal tuberculosis and Crohn's disease: a 6-year prospective multicenter study. *Am J Gastroenterol* 2019;114:490–499. doi:[10.14309/ajg.0000000000000064](https://doi.org/10.14309/ajg.0000000000000064)
2. Kedia S, Das P, Madhusudhan KS, et al. Differentiating Crohn's disease from intestinal tuberculosis. *World J. Gastroenterol* 2019;25:418–432. doi:[10.3748/wjg.v25.i4.418](https://doi.org/10.3748/wjg.v25.i4.418)
3. European Centre for Disease Prevention and Control/WHO Regional Office for Europe. Tuberculosis surveillance and monitoring in Europe 2017. doi:[10.2900/2767](https://doi.org/10.2900/2767)
4. Centers for Disease Control and Prevention (CDC). National Center for HIV/AIDS, Viral Hepatitis, STD and TB Prevention (U.S.). Division of Tuberculosis Elimination. Reported Tuberculosis in the United States, 2016. Atlanta, GA: US Department of Health and Human Services, CDC; 2017. Available from: <https://stacks.cdc.gov/view/cdc/49908>
5. Puri AS, Vij JC, Chaudhary A, Kumar N, Sachdev A, Malhotra V, et al. Diagnosis and outcome of isolated rectal tuberculosis. *Dis Colon Rectum*. 1996;39:1126–9. doi: [10.1007/BF02081413](https://doi.org/10.1007/BF02081413)