

Case report

Anal tuberculosis: A non-Healing anal lesion

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ABSTRACT

Anal tuberculosis is an extremely rare extrapulmonary presentation of tuberculosis (TB). Less than 1% of the individuals who contract TB manifests as gastrointestinal TB, and anoperineal TB is much less frequently encountered, 1% of the TB cases of the digestive tract. A rare case of anal tuberculosis is reported in a 37-year-old male patient with a recent anal fistula surgery and relapsing anal lesions. AFB were detected by biopsy and culture. In total, the treatment course lasted 6 months and the patient showed signs of recovery in the early stages of the treatment (after 2 weeks), and complete remission was achieved. In conclusion, it is recommended that in case of encountering Non-healing and recurrent anal lesions, especially in regions endemic for TB, should be evaluated for tuberculosis.

Introduction

TB still poses serious risk to individuals especially in highly endemic areas of the world [1]. It is estimated that a third of the world's population is infected with TB at present [2]. 10416 residents of Iran were suffering from TB in 2015 [3]. Less than 1% of the individuals who contract TB develop it as gastrointestinal TB. Anoperineal TB is much less frequently encountered, occurring in 1% of TB of the digestive tract [4]. A rare case of anal tuberculosis is reported.

Case presentation

A 37-year-old Iranian male patient was admitted to the Shohadaye Ashayer Hospital, Khorramabad, Iran, in 2016 with the complaints of weakness, anorexia, fatigue, weight loss along with fever and chills. The fever was dramatically exacerbated at nights and it was accompanied with sweating, dyspnea, and nonbloody sputum. The patient had been bothered by anal pain and discharge. The symptoms had started 7 days prior to his referral to the hospital. The patient added that all of the above-mentioned symptoms emerged a week (2 weeks before his referral to the hospital) after he had undergone anal fistula surgery and

pilonidal sinus surgery due to rectal bleeding that had lasted for 9 months. He had also lost weight up to 12 kg over the previous 5 months. He had received antimicrobials and analgesia in the aftermath of his anal surgery, including metronidazole, ciprofloxacin and acetaminophen. The patient had a history of smoking, opium use and IV drug injection. Historically, he was not known to be immunocompromised and had no close contact with a case of tuberculosis.

On physical examination, he was fully alert and conscious and could actively participate in a conversation. His vital signs were as follows: temperature: 37.9C, heart rate: 86 beats/min, blood pressure: 100/70 mm/Hg, and respiratory rate: 18 breaths/min. In general, he seemed well. Thoracic and abdominal examinations were completely normal, respiratory and cardiac sound were normal and jugular venous pressure was not raised, nor was any lymphadenopathy detected. On the examination of the anus, anal erythema and swelling as well as discharge near the site of surgery were observed.

Standard blood tests are shown in Table 1. A PPD was negative. He was found be HIV antibody positive as well as anti hepatitis C positive. Chest X-ray did not reveal any abnormalities and the CT of the chest was also negative. The CT scan of the abdomen/pelvis with contrast revealed thickening of the rectum (Fig. 1). A colonoscopy revealed

Abbreviations: TB, tuberculosis; MTB, mycobacterium tuberculosis; CT, computed tomography; IV, intravenous; AIDS, acquired immunodeficiency syndrome; HIV, human immunodeficiency virus; HB, hemoglobin; ESR, erythrocyte sedimentation rate; VDRL, venereal disease research laboratory; IgG, immunoglobulin G; IgM, immunoglobulin M

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Table 1
Laboratory findings.

WBC	$5.8 \times 10^3/\mu\text{L}$
RBC	4.74 Mil/ μL
PLT	$148 \times 10^3/\mu\text{L}$
Hb	10.4 g/dl
Blood urea	75 mg/dl
Creatinine	1 mg/dl
AST	41 IU/L
ALT	10 IU/L
CRP	+3
Bill(T-D)	13.8, 11

grade 2 internal hemorrhoids, many small aphthous ulcers in the rectum and normal sigmoid and descending colon (Figs. 2 and 3). An AFB stain of the ulcers was negative. The biopsy showed chronic granulomatous proctitis (Fig. 4). Staining was positive for acid fast bacilli. The patient was then begun on standard four drug therapy for TB. The cultures for TB were positive and his symptoms and lesions healed.

Discussion

Digestive tract tuberculosis makes up 1% of all cases of TB. Any part of the digestive system can be affected by TB [5]. The most commonly

affected part of the intestinal system is the ileocecal region. The Appendix and the jejunum are not very likely to be involved. The involvement of the anus is even less frequently observed [6]. Generally, 1% of the digestive tract TB cases are anal TB cases [4]. It is generally difficult to diagnose anal TB [7,8], as was in this case. Anal TB varies in terms of morphology and may be observed in ulcerative, verrucous, lipid, and military forms, the most common type being the ulcerative form. The most common presentations of anal TB are hemorrhoidal nodules, perianal abscess, or anal fistula [9], as in this patient who was initially diagnosed with anal fistula. Given the data collected from the history taking and physical examination, the following differential diagnoses were considered in the present study: Anorectal fistula, Crohn's disease, lymphogranuloma venereum, rectal foreign bodies, actinomycosis, perianal abscess, anal fissure, IBD, local trauma, immunodeficiency states, STD (chlamydia, gonorrhea, and syphilis), neoplasm, and presacral epidermoid cyst. Eventually, using the data obtained through various medical procedures, other differential diagnoses were ruled out and it was realized that the patient was immunocompromised due to HIV infection and affected by anal TB.

Conclusion

A rare case of anal tuberculosis was reported in a patient with a history of recent anal fistula surgery in the endemic area of Lorestan, Iran. When encountering a non-healing and recurrent anal lesion in a patient with a history of recent anal fistula surgery, particularly in

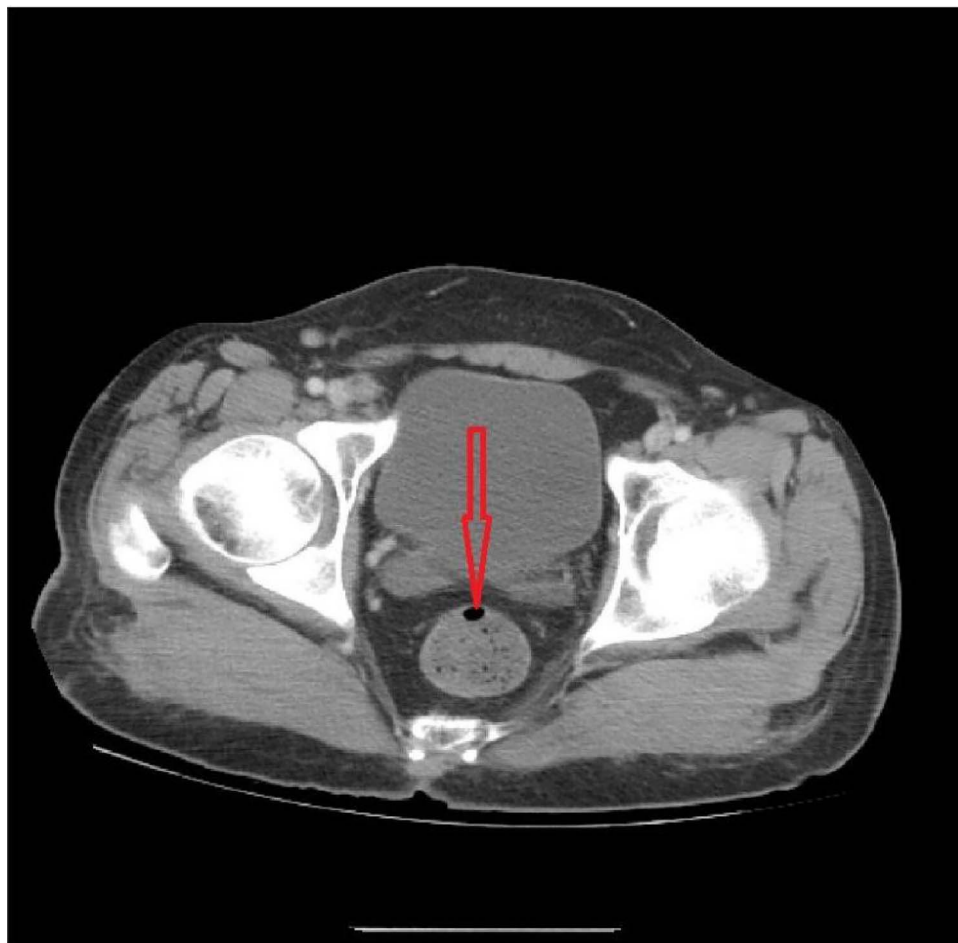


Fig. 1. CT scan of pelvis shows thickening of the rectum.

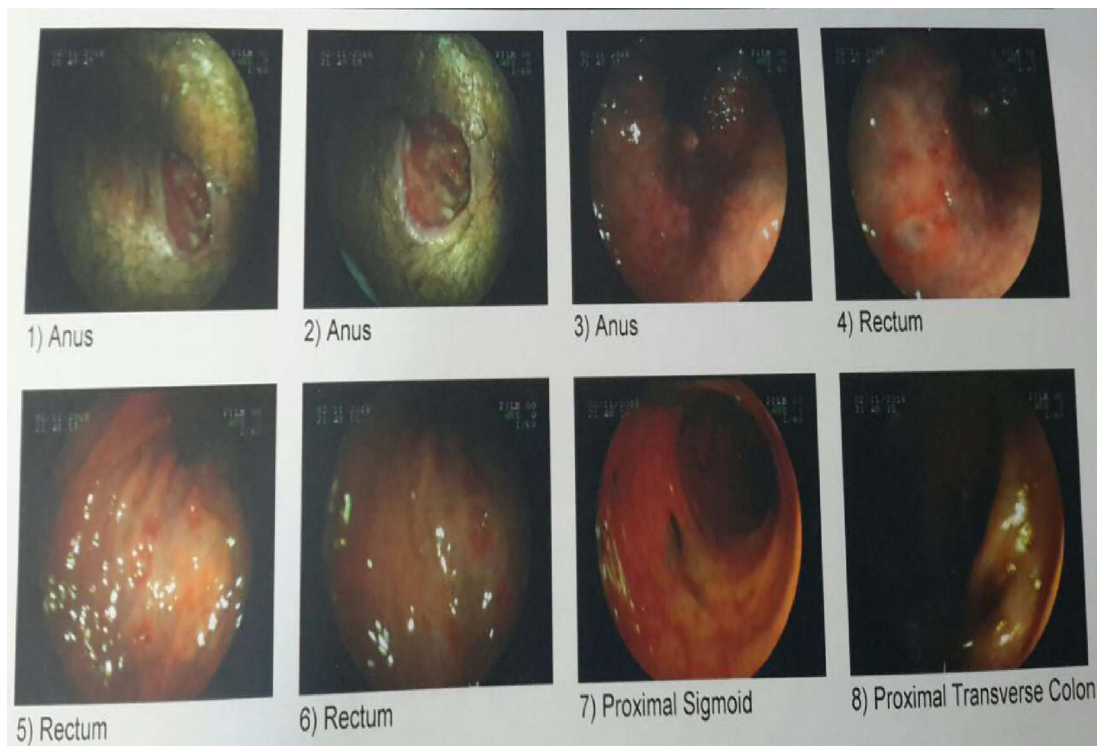


Fig. 2. Colonoscopy.

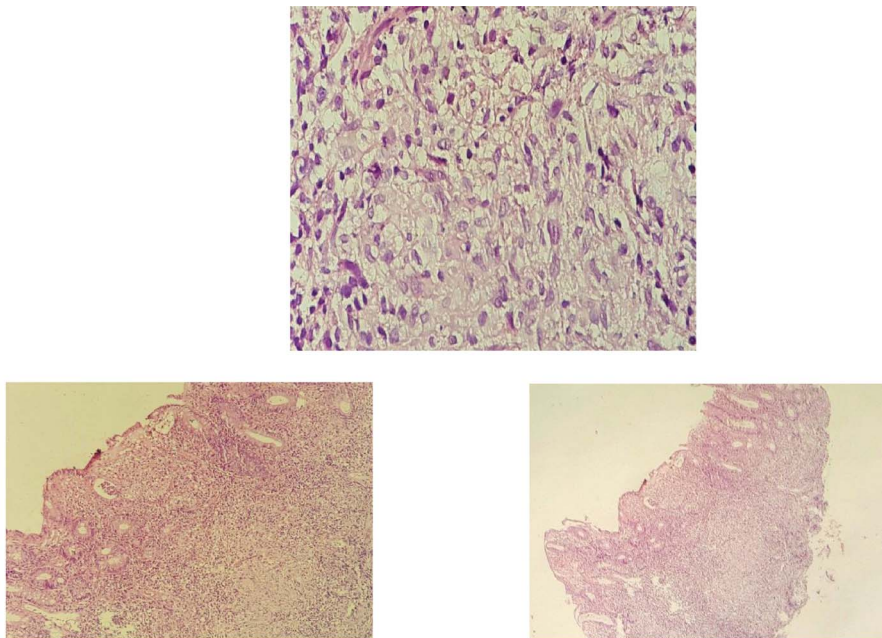


Fig. 3. Anus.

endemic regions with remarkable incidence rates of TB, anal tuberculosis known as a rare manifestation of extrapulmonary TB should be kept in mind as an important differential diagnosis by the medical team.

Ethical considerations

Written informed consent was taken from the patient to report this case.



Microscopic description: Sections revealed fragments of large intestinal mucosa. The surface epithelium was partially destroyed and replaced by fibrinous leukocyte exudate. The stroma showed signs of edema, fibrosis and mixed inflammatory cells infiltration. The remaining epithelium showed regenerative changes. There was no evidence of tumoral infiltration. There were also occasional aggregates of epithelioid histiocytes forming granulomas.

Fig. 4. H & E staining showing chronic granulomatous proctitis consistent with tuberculosis.

Conflict of interest statement

The authors have no conflict of interest to declare.

Acknowledgement

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