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TUBERCULOUS ANAL FISTULA: A CASE REPORT

S. Riffi Temsamani*, L. El Aoufi, K. Attaqui, A. Zaoui, A. Akjay, H. Ouaya, H. Meyiz and I. Mellouki

Department of Hepato-Gastroenterology, Mohammed VI University Hospital, Tangier.

***Corresponding Author: S. Riffi Temsamani**
Department of Hepato-Gastroenterology, Mohammed VI University Hospital, Tangier.

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ABSTRACT
Ano-perineal tuberculosis is a rare and often underdiagnosed form of extrapulmonary tuberculosis, representing less than 0.7% of gastrointestinal tuberculosis cases. We report the case of a 55-year-old woman with a history of type II diabetes and recently initiated anti-tuberculous therapy for sacroiliitis, who presented with proctalgia and purulent anal discharge. Clinical examination revealed a fistulous opening, and histopathological analysis confirmed granulomatous inflammation suggestive of a tuberculous origin. The patient showed complete healing after a nine-month course of anti-tuberculosis treatment. This case highlights the diagnostic challenges posed by ano-perineal tuberculosis due to its nonspecific clinical features, often mimicking Crohn's disease or cryptoglandular fistulas. Early recognition, particularly in endemic regions, is crucial to avoid complications such as recurrence or anal incontinence. Diagnosis relies on histological and microbiological confirmation, and treatment is primarily medical, with surgery reserved for drainage of complex lesions.

KEYWORDS: Anal fistula, Ano-peritoneal tuberculosis, Extra pulmonary tuberculosis, Morocco.

INTRODUCTION
Tuberculosis remains a major public health concern, particularly in developing countries. While the pulmonary form is the most common, extrapulmonary tuberculosis accounts for approximately 15–20% of cases, with a predominance of lymphatic, pleural, and osteoarticular involvement. Digestive tract involvement is rare, representing about 1% of extrapulmonary cases.

Among these digestive manifestations, anorectal tuberculosis is particularly uncommon and often underrecognized. It presents a diagnostic challenge due to its nonspecific clinical features, which can mimic more common proctologic conditions such as cryptoglandular anal fistulas or inflammatory bowel diseases.

In this case report, we present a rare instance of a tuberculous anal fistula, highlighting the need for a high index of suspicion in appropriate epidemiological contexts. We also discuss the diagnostic and therapeutic aspects of this atypical presentation of tuberculosis.

PATIENT AND CASE REPORT
This is the case of a 55-year-old female patient, Z.A., with a medical history of type II diabetes managed with oral antidiabetic drugs, and being followed for tuberculous sacroiliitis under anti-tuberculosis treatment initiated 15 days prior.

She presented to the Hepato-Gastroenterology Department at the University Hospital of Tangier with complaints of proctalgia and purulent discharge.

Proctological examination revealed a fistulous opening located 1 cm from the anal margin at the 9 o'clock position, exuding pus. A biopsy of the fistulous tract was performed (Figure 1).

Histopathological examination showed granulomatous changes, suggestive of a tuberculous origin, given the patient's clinical context.

A follow-up proctological examination was conducted after two months of anti-tuberculosis treatment. The patient's clinical course showed progressive regression of the perineal lesions after two months, with complete resolution observed after four months of therapy.

DISCUSSION
Tuberculosis represents a major public health issue in developing countries, including Morocco. Isolated ano-perineal tuberculosis is very rare, accounting for less than 0.7% of gastrointestinal tuberculosis cases.[1] It is more common in men (sex ratio 4:1), typically occurring from the fourth decade of life onward.[4]

It usually results from the spread of *Mycobacterium tuberculosis* bacilli through various mechanisms: direct

ingestion of infected pulmonary secretions in active pulmonary tuberculosis; hematogenous dissemination from a primary pulmonary focus during childhood with later reactivation; direct extension from adjacent organs; or lymphatic spread from infected tuberculous lymph nodes.[4]

Our patient was under anti-tuberculous treatment for tuberculous sacroiliitis, initiated 15 days prior to presentation.

Perineal tuberculosis can present with a wide range of clinical manifestations that often mimic Crohn's disease**.** These may include anal ulceration, fistulas, recurrent perineal abscesses, inguinal lymphadenopathy, anal fissures, or mass-like lesions. Morphologically, the lesions are described as ulcerative, verrucous, lupoid, or military.[1]

The fistulizing form is the most common, seen in 80 to 91% of cases, and is often complex (62–100%). The ulcerative form appears as a superficial, granular, necrotic-hemorrhagic ulcer with irregular borders and purulent discharge.[3]

Despite the availability of multiple diagnostic tools, diagnosing anal tuberculosis remains challenging. The tuberculin skin test (TST) is positive in approximately 70% of cases. Interferon-gamma release assays (IGRAs) such as the QuantiFERON® test are highly specific but do not distinguish between latent and active tuberculosis.[4]

Definitive diagnosis relies primarily on histological or bacteriological evidence. The typical histological lesion consists of an epithelioid and giant-cell granuloma with caseating necrosis. Identification of *Mycobacterium tuberculosis* can be achieved through direct smear microscopy with Ziehl-Neelsen staining, or culture, which remains the gold standard, with a sensitivity ranging from 60% to 90% and 100% specificity.

GeneXpert MTB/RIF, a real-time automated PCR test, enables rapid and specific detection of *M. tuberculosis* (sensitivity: 77.3%, specificity: 98.2%).[2]

The treatment of ano-perineal tuberculosis is based on a nine-month course of anti-tuberculosis therapy. Surgery may be recommended in the case of fistula, in combination with medical treatment, to ensure adequate drainage of the infected lesions.[2]

CONCLUSION

Ano-perineal tuberculosis remains a rare and often underdiagnosed form of extrapulmonary tuberculosis, which can occur with or without pulmonary involvement and may sometimes present as a diffuse disease. Early recognition is essential to avoid complications such as recurrence and the need for repeated surgical interventions. Treatment is primarily based on prolonged anti-tuberculosis therapy, typically for at least nine months. While conservative surgical approaches are currently preferred, the risk of anal incontinence remains a concern, particularly in cases with delayed diagnosis. A high index of suspicion, especially in endemic areas, is crucial to ensure timely and appropriate management.

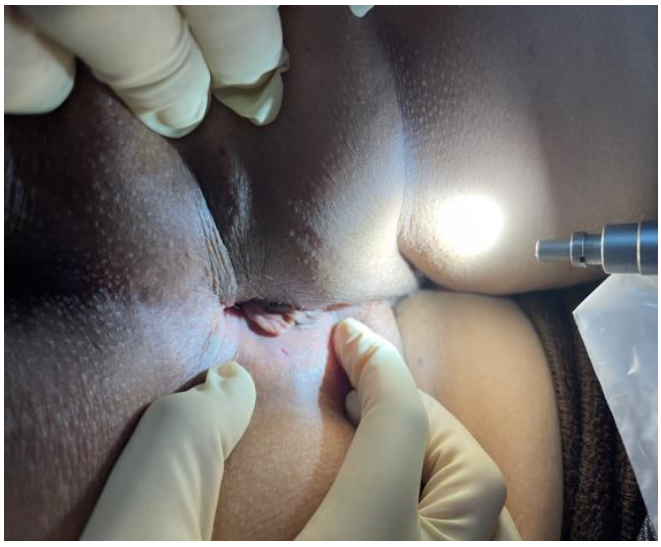

Figure 1: Fistule anale atypique latérale (Avant le traitement antibacillaire).

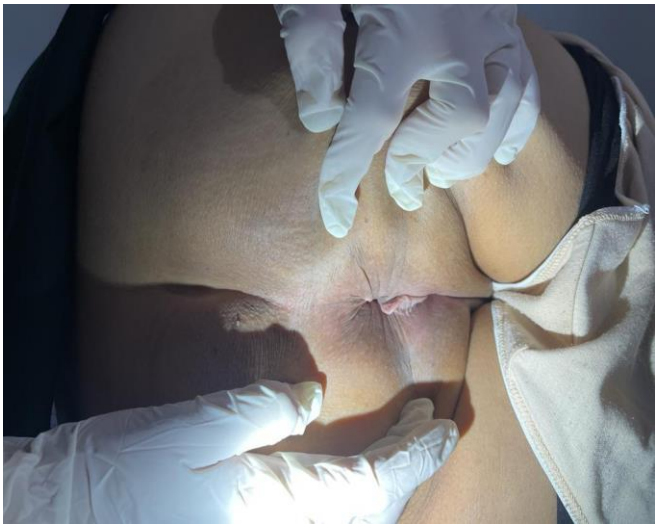

Figure 2: Fermeture de l'orifice externe après 2 mois du traitement antibacillaire.

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