**Scholars Journal of Medical Case Reports**
Abbreviated Key Title: Sch J Med Case Rep
ISSN 2347-9507 (Print) | ISSN 2347-6559 (Online)
Journal homepage: https://saspublishers.com

OPEN ACCESS

**Hepato-Gastroenterology**

# Unusual Presentation of Digestive Tuberculosis: About A Case Report

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**DOI:** 10.36347/sjmcr.2024.v12i02.011 | **Received:** 22.12.2023 | **Accepted:** 30.01.2024 | **Published:** 07.02.2024

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**Abstract** **Case Report**

Tuberculosis is a public health issue. Pulmonary form is the most common, and isolated ano-perineal involvement is very rare. We describe in this paper a case of an ano-perineal tuberculosis in a 26-year-old, who was admitted for a recurrent fistula and chronic perianal ulcerations. Many investigations were made, including Human Immunodeficiency Virus (HIV) and syphilis serologies, ileocolonoscopy, chest X-ray, and they all revealed no abnormalities. The Tuberculin intradermal reaction was positive with a 15 mm induration. Histopathological examination of perianal ulceration's biopsies revealed epithelioid cell granuloma accompanied by Langhans multinucleated giant cells and enclosing caseating necrosis, which allowed us to diagnose an anoperineal tuberculosis. The patient was successfully treated by a 6-month regimen.

**Keywords:** Tuberculosis, ano-perineal, fistulas, ulcerations.



## INTRODUCTION

Tuberculosis remains a significant public health concern, particularly in developing countries, ranking among the top 10 causes of global mortality according to the World Health Organization (WHO) [1]. Pulmonary tuberculosis is the most common form, while digestive involvement ranks third among extra-pulmonary presentations, dominated by the peritoneal form and ileocecal involvement.

Anoperineal involvement is very rare, accounting for less than 1% of tuberculosis cases, and sparsely reported in the literature, which leads to diagnosis and therapeutic difficulties [2]. Manifestations may include fistulas, abscesses, or ulcerations. In this paper, we present a case of ano-perineal tuberculosis, revealed by anal fistulas and perineal ulcerations.

## CASE REPORT

A 26-year-old male patient was admitted to the hepato-gastroenterology department in the university hospital of Mohamed VI with the complaints of chronic anal pain and purulent discharge. He had a medical history of a perianal abscess in 2012, which was incised and drained, but recurred despite an initial healing. His symptoms had started 6 months prior to his referral to the hospital. In addition to the chronic anal pain and purulent discharge, he was also complaining of weakness and weight loss. He had no changes in bowel habits or respiratory symptoms.

On physical examination, the patient was on good condition, afebrile, with a body mass index of 19 kg/m2. The perianal region examination showed large and deep bilateral infected ulcerations and two productive orifices discharging pus (Figure 1 and 2). Rectal examination showed no abnormalities. Abdominal, pleuro-pulmonary and cardiovascular examinations were unremarkable. No lymphadenopathy was found on palpation.

Initial laboratory tests showed a normal lymphocyte count at 1260 cells/mm3, a normal hemoglobin level of 13.5g/dl, and an elevated C-reactive protein (CRP) level of 40mg/l. Human Immunodeficiency Virus (HIV) and syphilis serologies were negative. An ileocolonoscopy was performed and was normal. Tuberculin intradermal reaction was positive with a 15 mm induration, but the chest X-ray revealed no abnormalities. Pelvic magnetic resonance imaging (MRI) was not performed due to financial constraints. Histopathological examination of perianal ulceration's biopsies revealed epithelioid cell granuloma accompanied by Langhans multinucleated giant cells and enclosing caseating necrosis. The diagnosis of ano-

perineal tuberculosis was established, and the patient received antitubercular treatment (initially quadruple therapy including rifampicin, isoniazid, pyrazinamide, and ethambutol for 2 months, followed by dual therapy with rifampicin and isoniazid for 4 months). No major side effects were reported. A follow-up was conducted at one and three months from the initiation of the treatment.

The clinical examination showed a regression of the ulcerations and a reduction in purulent discharge. After 6 months of treatment, the outcome was favorable, with disappearance of the ulcerations and complete drying of the fistulas. Only a mild granular region remained (Figure 3 et 4). After a 2 years follow-up, the patient is healthy with no recurrence signs.

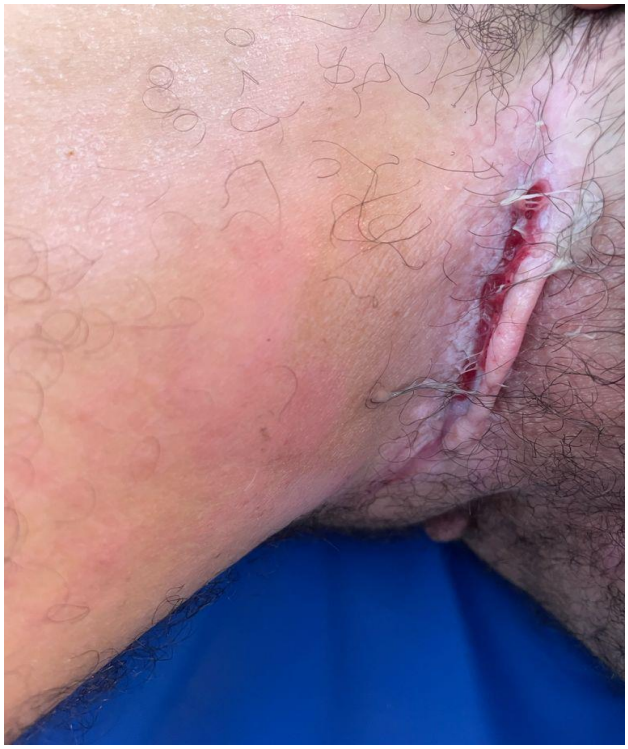

**Figure 1: Deep and large right ulceration of the perineal region**

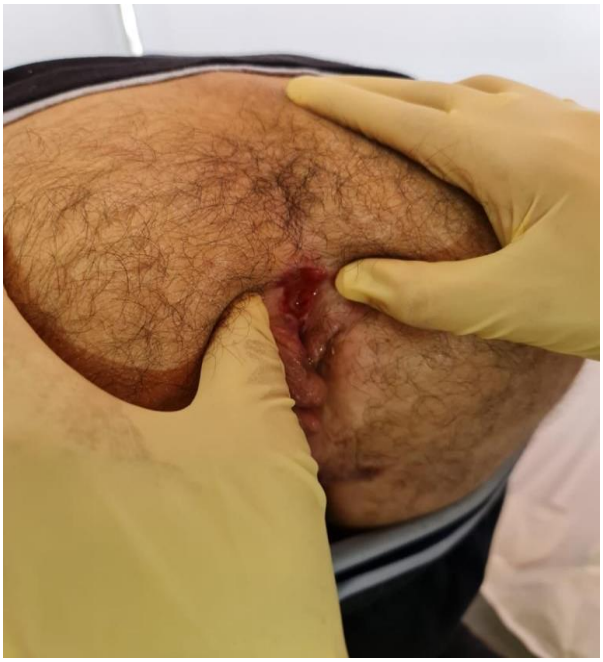

**Figure 2: Deep and large ulceration of the perineal region with orifices discharging pus**

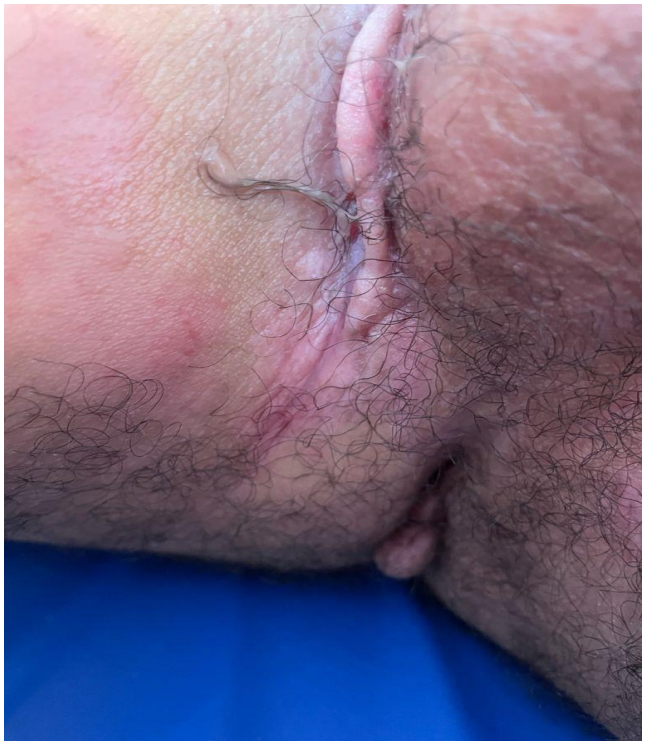

**Figure 3: Complete disappearance of the right perineal ulceration after 6 months of treatment. A mild granular region remained**

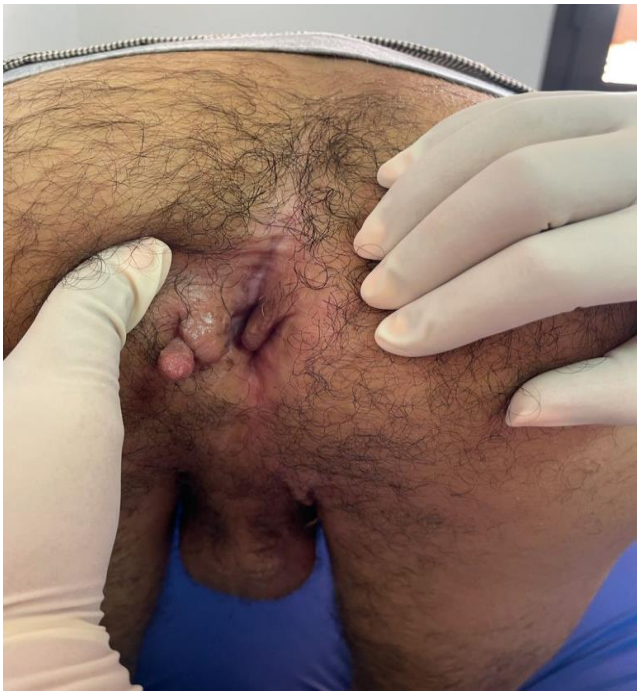

**Figure 4: Healing of perineal ulceration and orifice's drying after 6 months of treatment**

## DISCUSSION

Digestive tuberculosis is rare, with ileocecal involvement being predominant, while ano-perineal forms are only sporadically reported in the literature [3]. Ano-perineal tuberculosis predominantly affects young adults, with a clear male predominance. Transmission can occur through digestive, hematological, lymphatic or contiguous ways [4]. The clinical spectrum includes ulcerative forms and perianal suppuration (abscess or anal fistula), as observed in our patient [5]. Diagnosis is challenging, with Crohn's disease being a primary differential. Other conditions causing chronic ano-perineal lesions include syphilis, acquired immunodeficiency syndrome (HIV), Hidradenitis Suppurativa, Lymphogranuloma venereum and malignancies. Tuberculin intradermal reaction lacks specificity, with a 30% negative rate, especially in

immunocompromised or severely malnourished individuals [4]. The Quantiferon test is specific but less sensitive. Investigating pulmonary involvement, particularly through a chest X-ray, or by detecting Koch bacilli in sputum can help through the diagnosis. The typical histopathological finding is the epithelioid-giant-cell granuloma with caseous necrosis, consistent with our patient's presentation. Bacteriological confirmation involves identifying Kock bacilli through direct examination with Ziehl-Neelsen staining (rare) or culture on Löwenstein Jensen selective medium.

The treatment of ani-perineal tuberculosis involves a 6-month antibiotic regimen: rifampicin, isoniazid, pyrazinamide, and ethambutol for 2 months, followed by rifampicin and pyrazinamide for 4 months [7]. Favorable outcomes are common, as observed in our patient. Some authors advocate extending treatment for 9 months [8], but this decision depends on post-therapeutic monitoring. Surgical intervention may be considered in cases of perianal suppuration.

## CONCLUSION

Ano-perineal tuberculosis is a rare condition but increasingly diagnosed, particularly in immunocompromised individuals. Is it a real diagnostic challenge and should be considered in cases of recurrent ano-perineal lesions despite appropriate treatment. Biopsy with histopathological examination confirms the diagnosis. Early and adequate treatment generally yields excellent results.

**Acknowledgements:** None

**Funding:** The author(s) received no financial support for the research, authorship, and/or publication of this article.

**Declaration of Conflicting Interests:**

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

**Authors' Contributions:**

All authors participated in the conception, drafting the work, critically revised the manuscript, approved the final version to be published, and agree to be accountable for all aspects of the work.

**Consent to Publication:**

The patient has declared his consent freely and in an informed manner, in order to allow the production and publication of this manuscript.

**Ethical Approval:** Ethical approval is not required at our institution to publish an anonymous case report.

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