

Cutaneous Tuberculosis: A Case Report of an Atypical Clinical and Dermoscopic Presentation

Meryem Elomari Alaoui^{1*}, Amani Fliti¹, Kaoutar Znati², Laila Benzekri¹, Mariame Meziane¹, Nadia Ismaili¹, Karima Senouci¹

¹Department of Dermatology and venerology, University Hospital Center Ibn Sina, University of Mohamed V, Rabat, Morocco

²Department of Histopathology, University Hospital Center Ibn Sina, University of Mohamed V, Rabat, Morocco

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*Corresponding author: Meryem Elomari Alaoui

Department of Dermatology and Venerology, University Hospital Center Ibn Sina, University of Mohamed V, Rabat, Morocco

Abstract

Case Report

Tuberculosis is an endemic disease in Morocco caused by the *Mycobacterium tuberculosis*. Cutaneous forms are rare, they account for 1-2% of extra-pulmonary localizations of tuberculosis. The diagnosis of cutaneous TB often poses a challenge to clinicians because of its clinical polymorphism and it is based by histology, QuantiFERON-TB Gold test, and polymerase chain reaction. Treatment consists of a combination of antibiotics. Herein we report a case report of an atypical clinical and dermoscopic presentation of cutaneous tuberculosis.

Keywords: Tuberculosis cutaneous, Morocco, *Mycobacterium*.

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INTRODUCTION

Tuberculosis is an infectious disease due to *Mycobacterium tuberculosis*. Improved hygiene, living standards and antituberculous therapy have greatly reduced the prevalence of TB in developed countries, but the disease re-emerged in some areas with the advent of the acquired immunodeficiency syndrome (AIDS) epidemic [1-3]. The clinical forms are numerous and depend on the mode of inoculation, the quantity of bacterial inoculum as well as the immune status of the patient. Herein, we present a case report of an atypical clinical and dermoscopic presentation of cutaneous tuberculosis.

CASE REPORT

A 76-year-old women, with no medical history, consulted in our department of dermatology for one painless ulcerative plaque on the lower leg progressively evolving for 1 year and increasing in size, with no associated respiratory signs. However, the patient received a lot of antibiotics, without any improvement. Dermatologic examination revealed in the extension side of the leg a well-limited, infiltrated, erythematous plaque measuring 3.5 cm in diameter with a regular, raised, pigmented border, surmounted by fine, whitish scales with erosion in the center of the lesion (Figure 1).



Figure 1: An erythematous plaque with a regular raised, pigmented border, surmounted by fine, whitish scales with erosion in the center of the lesion

The dermoscopic examination showed an erythematous background, white scales, chrysalides associated with dotted vessels and rosettes (Figure 2).

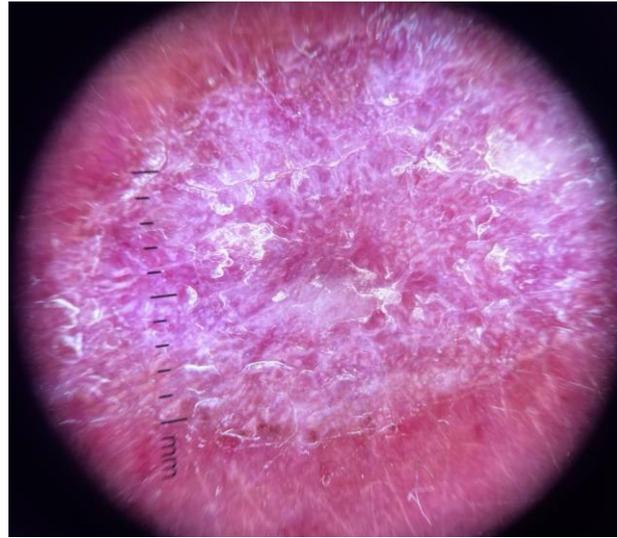


Figure 2: An erythematous background, white scales, chrysalides associated with dotted vessels and rosettes

General and systemic examinations were insignificant, with no palpable lymphadenopathy.

A skin biopsy showed epithelioid and gigantocellular granulomas dermatitis with onset caseous necrosis and several Langerhans cells in the dermis and many lymphocytic infiltrates (Figure 3).

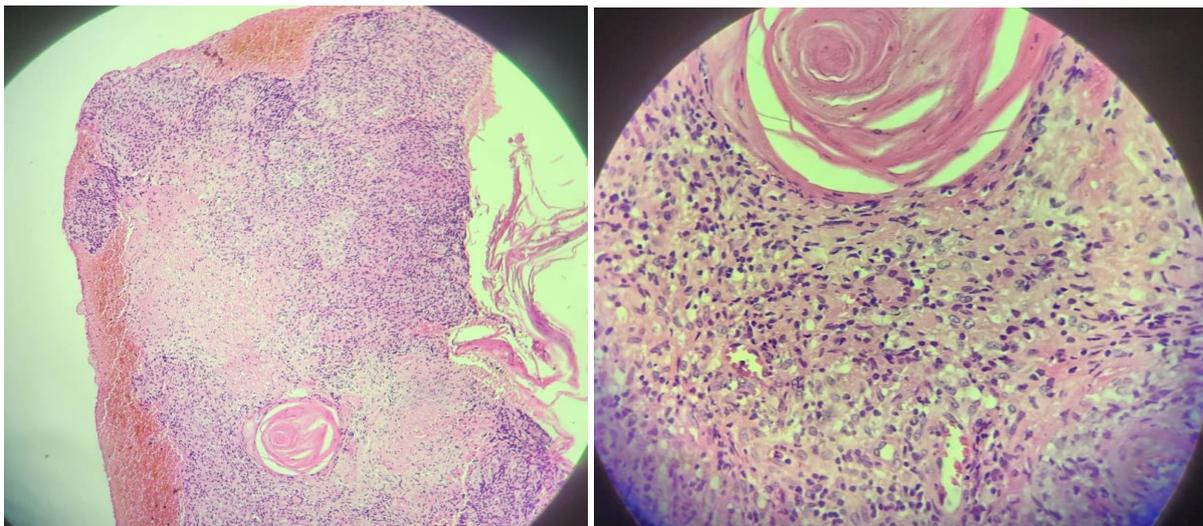


Figure 3: Histological examination reveals an epithelioid and gigantocellular granulomas dermatitis with onset caseous necrosis and several Langerhans cells in the dermis and many lymphocytic infiltrates

The polymerase chain reaction (PCR) on biopsy was positive to tuberculosis, and the culture of material obtained from biopsy of the lesion was also positive for *Mycobacterium tuberculosis*. QuantiFERON-TB Gold test was positive.

Chest X-rays and laboratory tests were normal, and human immunodeficiency virus antibodies were negative.

According to clinical, pathological, and bacteriological findings, a final diagnosis of cutaneous tuberculosis was made.

Treatment with isoniazid 5 mg/kg/day, rifampicin 10 mg/kg/day, ethambutol 20 mg/kg/day, and pyrazinamide 25 mg/kg/day was started for 2 months,

with a good tolerability, and the patient did not return for a check-up.

DISCUSSION

Tuberculosis is a severe problem in underdeveloped countries [4], it is a chronic dermatosis mainly caused by the *Mycobacterium tuberculosis* complex and can be found in 0.1%–2% of dermatology patients [5].

In Morocco, the incidence of tuberculosis is 94 cases per 100,000 population [6] and It represents the fifth extrapulmonary form in Morocco after pleural, lymph node, urogenital, and intestinal tuberculosis.

The clinical presentation of cutaneous tuberculosis depends on the route of the infection, the pathogenicity of the bacteria, and the immune status of the host, it varies from erythema, papules, and verrucous hyperplasia to infiltrated plaques that can be extremely deformative. In our case, this was an atypical clinical and dermoscopic presentation of cutaneous tuberculosis. It resembles to Tuberculosis verrucosa cutis which is the most common form of exogenous, lesions are usually solitary, painless and predominate in anatomical locations that are prone to traumas, such as fingers and toes. They start as erythematous papules surrounded by a purplish inflammatory halo that evolve to asymptomatic verrucous plaques, with 1 to 5 cm in diameter. Growth happens through peripheral extension, sometimes accompanied by central atrophy. They may rarely ulcerate [7].

The diagnostic delay can be very long and is more difficult in atypical forms, it is based on histology, but especially on the PCR, which will detect the mycobacterial DNA sequences by amplification [8].

Following the confirmation of cutaneous TB, it is essential to search for extracutaneous foci of TB by urine, blood and sputum samples, thorax X-ray or computed tomography (CT) scan of the chest; and bone scans [9].

The treatment of cutaneous TB is generally similar to that of pulmonary TB and surgical intervention may be beneficial in cases with localized infection [10-12]. In Morocco, the current national first-line treatment for pulmonary and extrapulmonary tuberculosis consists of isoniazid, rifampin, ethambutol, and pyrazinamide administered for the first 2 months, followed by isoniazid plus rifampin given for an additional 4 months.

CONCLUSION

In the presence of any chronic lesion recalcitrant to adequate standard treatment, cutaneous tuberculosis should be suspected, particularly in endemic areas. This case showed that cutaneous TB may present with various clinical presentations.

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