


CASE REPORT

A case of a verrucous and pseudotumoral mass on the leg that resolved with cryotherapy

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Funding information

None.

Abstract

Various clinical forms of cutaneous leishmaniasis can be encountered such as: ulcerated, lupoid, sporotrichoid and other rare forms (eczematiform, erysipeloid, psoriasiform, verrucous, and pseudotumoral). We report an atypical presentation of verrucous and pseudotumoral cutaneous leishmaniasis that resolved following a course of cryotherapy.

KEYWORDS

cutaneous leishmaniasis, pseudotumoral, verrucous

1 | INTRODUCTION

Cutaneous leishmaniasis (CL) is a zoonotic disease widespread in the eastern Mediterranean regions.¹ In the center and south of Tunisia, this disorder is endemo-epidemic. Over the last 4 years, there has been an annual decline in LC incidence. Currently, it is about 30 cases per 100,000 people. Environmental conditions, urbanization, and immunosuppression represent risk factors of CL.² If not treated, lesions usually resolve willingly after few months leaving a scar. We report a verrucous form mimicking squamous cell carcinoma.

2 | CASE PRESENTATION

An 80-year-old woman presented to our department for a 3-month history of budding tumor on her left leg. Initially, it had started as a papule that progressively enlarged and became verrucous in shape. Physical examination showed a painless verrucous mass measuring 5 × 3 × 1 cm, on the lateral surface of the lower 3rd left leg (Figure 1).

There were no palpable regional lymph nodes spreading. The lesion of the leg was biopsied (Figures 2 and 3). In terms of histopathology, the biopsies revealed epidermal hyperkeratosis with dense inflammatory infiltration of lymphocytes, plasmocytes, and histiocytes. It also showed intracellular basophilic small and rounded structures. To confirm the diagnosis of cutaneous leishmaniasis, we used Giemsa stain to demonstrate amastigotes in histiocytic cytoplasm (Figure 3 in set: Giemsa stain examined under oil immersion by light microscope). Verrucous and pseudotumoral CL was retained. The patient was treated with cryotherapy once a week for 4 months with good results. The lesion has almost been completely resolved at the 5th month of cryotherapy, which left a dyschromic scar (Figure 4).

3 | DISCUSSION

Leishmaniasis is a protozoan infection spreading worldwide. It has diverse clinical presentations, and it represents a public health problem in endemic countries

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FIGURE 1 Well-demarcated verrucous tumor with erythematous surface on the external aspect of the left leg, measuring 5 × 3 × 1 cm in diameter 161 × 216 mm (300 × 300 DPI)

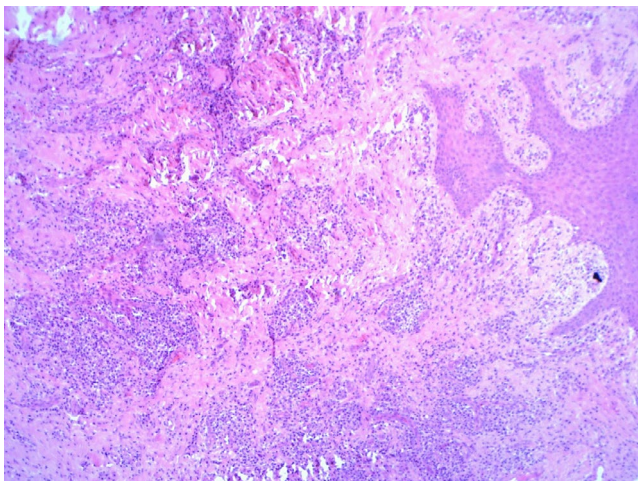


FIGURE 2 Epidermal hyperkeratosis with a dense inflammatory infiltrate of lymphocytes, plasmocytes, and histiocytes in the dermis (H&E × 50)

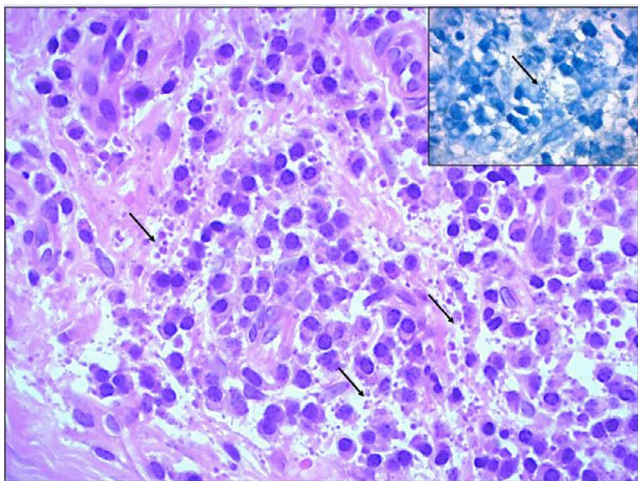


FIGURE 3 *Leishmania* amastigotes are found in the cytoplasm of histiocytes (black arrows) (H&E × 400); detail of Giemsa's staining showing amastigotes in blue (Giemsa × 1000)



FIGURE 4 Lesion after cryotherapy: good results leaving a dyschromic scar

such as Syria, Afghanistan, Pakistan, Iran, Iraq, Brazil, Algeria, and Tunisia.^{2,3} Various clinical forms can be encountered as follows: the ulcerated and crusted form, the lupoid form, the sporotrichoid form, and other rare forms such as eczematiform, erysipeloid, psoriasiform, verrucous, and pseudotumoral.⁴ These uncommon presentations represent 2%–5% of CL clinical manifestations.⁵ Previously, there were small number of cases of verrucous and tumor-like forms that had been reported in several series.⁴ The most important differential diagnosis is the verrucous variant of squamous cell carcinoma.⁶ The diagnosis of CL may be made using several methods. The most common ones are tissue smear and skin biopsies with Giemsa stain and Leishman stain in order to identify *Leishmania* amastigotes. The culture enables the specimen identification, but PCR has a higher sensitivity, and in particular nested PCR.^{1,2} The treatment of CL can be topical or systemic. Cryotherapy alone can be efficient, particularly in the case of a small number lesions (at least 4 measuring smaller than 4 cm).^{7,8} Most of the previously reported or published cases of verrucous CL were treated systemically.^{4,6}

The peculiarity of our case consists in its striking resemblance to verrucous squamous cell carcinoma which refers to the verrucous and pseudotumoral presentation and the response to cryotherapy without need for systemic treatment.

4 | CONCLUSION

While verrucous-like lesions of this nature can mimic squamous cell carcinoma resulting in missed diagnosis,

we recommend that dermatologists consider the possibility of CL when managing such lesions in patients that originates from an endemic region.

ACKNOWLEDGMENTS

None.

CONFLICT OF INTEREST

None.

AUTHOR CONTRIBUTIONS

RM and SK wrote the manuscript. AM revised the manuscript. MS, GN, and BT wrote parts of the manuscript related to the histopathological aspects of the disease. RM, SK, AM, and TH contributed to the management of the patient and revised the article. TH critically reviewed the manuscript and gave final approval. All authors have read and approved the final manuscript and agree to take full responsibility for the integrity and accuracy of the work.

CONSENT

Written informed consent was obtained from the patient to publish this report in accordance with the journal's patient consent policy.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

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How to cite this article: Rekik M, Sellami K, Amouri M, et al. A case of a verrucous and pseudotumoral mass on the leg that resolved with cryotherapy. *Clin Case Rep*. 2022;10:e05352. doi:[10.1002/ccr3.5352](https://doi.org/10.1002/ccr3.5352)