

## Rare variants of cutaneous leishmaniasis presenting as eczematous lesions

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### Abstract

Cutaneous Leishmaniasis may present with clinical presentation such as zosteriform, sporotrichoid and erysipeloid. The eczema variant has rarely been reported. We report a 27-year-old patient with atypical cutaneous leishmaniasis resembling eczema on the hand of a man in Yazd province in the central of Iran.

**Keywords:** Cutaneous Leishmaniasis, Eczema, Iran.

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### Introduction

Cutaneous Leishmaniasis is a common protozoan disease, caused by *Leishmania*; and it is an important public – health problem in Iran (1). In its most common clinical picture it presents as nodules, papules or nodoloulcerative lesions. Unusual clinical presentations have been reported occasionally and include annular, sporotrichoid, palmoplantar, erysipeloid, whitlow, paronychia and impetigo-form (2-4). We present a patient with eczema form, a very rare and chronic variant of cutaneous leishmaniasis.

### Case Report

A 27-year-old man was referred to our clinic with a 3-month history of an exudating lesion on the hand (Fig. 1). It had started as a small insect-bite-like lesion and progressed slowly. He denied any history of burns, trauma, drug intake or allergic disorder.

The patient was an army soldier. There

was no history of a similar disease in the patient and his family. He also had not any history of tuberculosis or contact with tubercular patients. The patient denied risk factors associated with HIV and also reported no chills, fever, pain or constitutional symptoms.

The total blood count, CRP, Erythrocyte sedimentation rate (ESR), FBS, and intradermal purified protein derivative (PPD) skin test and HIV serology were all normal.

On examination, there was a crusted plaque on the posterior surface of the hand. The plaque had dirty-brown crust and multiple papulopustules. There was no lymph node or palpable lymphatic cord. The clinical picture was consistent with eczema. Previous treatments including steroid, antihistamine and antibiotics failed to heal the lesion and its slow progression.

Special stains and cultures were negative for acid-fast bacteria, fungi, and other bacteria. Because the patient was residing in an endemic area of disease, was asked to per-

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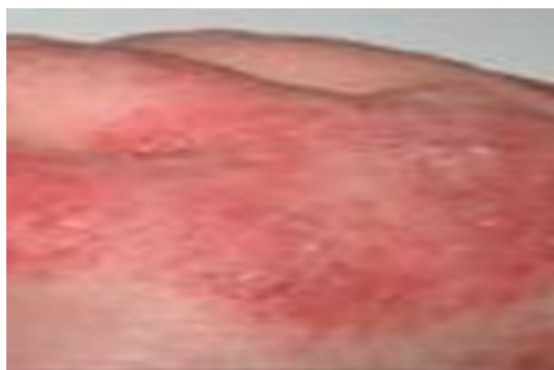


Fig.1. Lesion on the posterior of hand

form cutaneous leishmaniasis test and touch preparations stained with Wright – Giemsa preparation were positive for leishmania.

The patient was treated with meglumine antimoniate (Glucantime), pentavalent antimony, at a dosage of 20 mg/kg per day intra-muscularly for 20 days (treatment administered by center for control diseases of Iran). After completion of therapy, the lesion had partially healed, and after 3 months, the ulcer healed completely. The side effect of meglumine antimoniate was mild arthralgias, myalgias, and pain at the injection site but otherwise tolerated the medication well.

### Discussion

Cutaneous Leishmaniasis is caused by obligate intracellular protozoa of the genus leishmania. Rodents and canids are as common reservoir hosts and humans as incidental hosts (1). The vectors are sandflies of the genus phlebotomus in the old world. The incubation period ranges from a week to many months. Lesions typically appear on exposed areas of the body. The first manifestation is usually a papule at the site of the sandfly bite, which progressively increase in size and eventually ulcerate. Multiple primary lesions, regional adenopathy, sporotrichoid form, Zoster- form, impetigo – form, erysipeloid, and whitlow- form are variably present (4-7). Here, we described a case of cutaneous leishmaniasis showing unusual presentation, resembling eczema on the hand with a response to treatment with meglumine antimoniate (8). The pre-

cise pathogenesis of the eczema form of the cutaneous leishmaniasis has been poorly documented. The clinical manifestation in cutaneous leishmaniasis depends on the infecting Leishmania species and host immune response, which is largely mediated through cellular immunity. Other factors include the site of infection, the number of parasites inoculated and nutritional status of the host. However, in the eczematous form of the cutaneous leishmaniasis, one factor could be the epidermal invasion by Leishmania causing an intense cell- mediated immune response leading to severe inflammatory and eczematous changes (7, 9).

In our report the large size and the eczematous appearance of the lesion was in itself very rare, because there was no primary nodule or plaque. Our patient was an otherwise healthy, young adult with no history of other skin or systemic disease or atopy. Whether the eczematous appearance resulted from an atypical Leishmania strain or from lack of response or a specific immune response is not clear (10).

In another report a very rare case of bilateral and symmetrical cutaneous leishmaniasis was presented as eczema-like eruptions with localization exclusively on dorsal aspect of both hands (11). In another study, a 60-year-old man was presented with ulcerated infiltrative plaques over his face. The diagnosis was confirmed to be cutaneous leishmaniasis as eczema-like eruptions by histological examination and polymerase chain reaction assay of the skin biopsy. In our study the eruptions were on the hand (12).

### Conclusion

In endemic areas or in cases with recent travel to endemic areas, it is necessary for the physician to be aware of atypical skin lesion and it should be investigated for cutaneous leishmaniasis.

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The authors declare that there is no conflict of interest.

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