



# Mucocutaneous Leishmaniasis: Management of a Neglected Tropical Disease

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## Introduction

- Leishmaniasis is a parasitic disease transmitted by sand flies.
- Diagnosis is made by biopsy of the lesions
- Treatment varies depending on the severity of disease.
- Here we describe the diagnosis and treatment of mucocutaneous leishmaniasis.

## Case Presentation

A 50-year-old male with no prior medical history presented to the ER for evaluation of progressive lower extremity wounds with femoral lymphadenopathy (Fig 1a.).

The patient is an avid bird watcher with recent travel to Brazil and Ecuador. He sustained multiple mosquito, chigger, and sand fly bites.

He was initially treated with multiple antibiotics, but his wounds persisted. Skin biopsy yielded *Leishmania (Viannia) braziliensis* by PCR. He completed a 28-day course of miltefosine.

Six weeks later, the patient developed throat pain caused by a bleeding tonsillar ulcer. His lower extremity lesions remained unresolved. (Fig 1B). Tonsillar biopsy showed *Leishmania (Viannia) braziliensis*.

He was subsequently hospitalized for treatment with Amphotericin B given mucosal involvement. His hospitalization was complicated by an AKI which resolved with fluid resuscitation.

Three months later, the patient had 99% resolution of his skin lesions (Fig 1C).



Figure 1: Cutaneous manifestations of Leishmaniasis. A.) Initial skin lesions after treatment with TMP-SMX, doxycycline, clindamycin and levofloxacin. B.) Worsening lesions after completion of 28 days course of miltefosine. C.) Resolution of lower extremity wounds after completion of course of Amphotericin B.

## Discussion

Cutaneous Leishmaniasis (CL) is classified as simple or complex based on the risk for the development of mucocutaneous disease (ML).

Treatment is individualized based on the location, number, and size of the lesions.

Treatment of simple CL varies from observation, topical or systemic therapies.

In complex CL, systemic therapy is recommended due to the increased risk of progression to ML.

This patient met the criteria for complex CL due to the sub-species of leishmania isolated, its acquisition in the “mucosal belt” of South America, and lesion size.

Because the patient’s skin lesions failed to improve and he developed tonsillar involvement, Amphotericin B was indicated for treatment.

## Conclusion

While Leishmania is considered a tropical disease, clinical suspicion should be considered in patients who present with skin lesions after travel to Central America or the Middle East.

A thorough physical exam is necessary to evaluate for mucosal involvement in addition to skin manifestations.

Treatment typically includes miltefosine or Amphotericin B in refractory cases.