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A Rare Case Onychomadesis Caused By Paronychial Form of Cutaneous Leishmaniasis

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Abstract

Observation: Cutaneous Leishmaniasis (CL) is a major world health problem that is growing epidemically in Syria. We described the first case of onychomadesis induced by paronychial form of cutaneous leishmaniasis which have not been previously reported.

Introduction

Cutaneous Leishmaniasis (CL) is a major world health problem that is growing epidemically in Syria. Paronychial form is a very rare and chronic variant of cutaneous leishmaniasis. We described the first case of onychomadesis induced by paronychial form of CL which have not been previously reported.

Case Report

A 32 year-old male was referred to us for evaluation. He had an infiltrated swollen desquamation and erythematous ill-defined plaque on the third finger of the left hand extending to the proximal nail fold with onychomadesis since 4 months (**Figure 1**). The patient had been treated externally with antibiotic as long as anti-fungal topical and systemic drugs without any improvement.

A skin smear of the lesion with Giemsa staining was positive for Leishmania bodies and the diagnosis was confirmed as unusual clinical variants of CL (paronochial form) with consequent onychomadesis. We treated the patient with Glucantime intra muscular (I.M) injection 50mg/kg/day for 28 days with great improvement after the first course (**Figure 2**). More injections were recommended until he reached the complete clearance.

Discussion

Paronychia is a soft tissue infection around a fingernail that begins as cellulitis but that may progress to a definite abscess. Acute pa

Figure 1. Erythematous ill-defined plaque on the third finger of the left hand extending to the proximal nail fold with onychomadesis

Figure 2. Improvement after the first course of Glucantime injection

ronychia most frequently caused by staphylococci[**1**],while chronic paronychia is an inflammatory disorder of the nail folds of a toe or finger presenting as redness, tenderness, and swelling. It can be defined as inflammation of these sites lasting for more than 6 weeks [**2**]. It Usually caused by a fungal infection, rarely CL causes chronic paronychia [**2, 3, 4, 5**].

Cutaneous leishmaniasis is a major world health problem that is growing epidemically in Syria. It is a parasitic disease caused by Leishmania and transmitted by the bite of some species of sandflies and it affects various age groups[**5**]. This disease is highly prevalent in Syria where Leishmania major and Leishmania tropica are the known etiological agents. In 2011, more than 58,000 cases were reported in the country by the Ministry of Health [**6**].

Clinically there are many faces of CL: nodules, papules, ulcers ,as well as some unusual clinical variants. Paronychial form is a very rare and chronic variant of cutaneous leishmaniasis. In a large study included 718 patients with cutaneous leishmaniasis, 5.7% of them were presented with unusual morphologies [**5**]. The commonest was lupoid leishmaniasis 14 (34.1%), followed by sporotrichoid 5 (12.1%), paronychial 3 (7.3%), lid leishmaniasis 2 (4.9%), psoriasiform 2 (4.9%), mycetoma-like 2 (4.9%), erysipeloid 2 (4.9%), chancriform 2 (4.9%), whitlow 1 (2.4%), scar leishmaniasis 1 (2.4%), DLE-like 1 (2.4%), 'squamous cell carcinoma'-like 1 (2.4%), zosteriform 1 (2.4%), eczematous 1 (2.4%), verrucous 1 (2.4%), palmar/plantar 1 (2.4%) and mucocutaneous 1 (2.4%) [**5**].

Onychomadesis is characterized by separation of the nail plate from the matrix with persistent attachment to the nail bed and often, but not always, eventual shedding [**7**]. *Hardin* et al conducted a retrospective review of cases of onychomadesis reported from January 1960 to March 2013 using the PubMed database and an Ovid. In total 56 articles have been published Onychomadesis has been associated with infection, autoimmune disease, critical illness and medications [**7**]. The most commonly reported infection in association with onychomadesis was hand–foot–mouth disease (HFMD). Other causes include of varicella, C.albicans outside of the neonatal period, Fusarium solani and Trichophyton tonsurans [**7**]. Cutaneous leishmaniasis has not been reported previously as a cause of onychomadisis. The mechanism of onychomadesis in paronychial CL is unknown but the inflammation may cause inhibition of nail matrix proliferation.

Treatment options of leishmaniasis in Syria include cryotherapy, intralesional antimonial preparations injection for simple lesions, and intramuscular (I.M) pentavalent antimonial preparations. The choice of therapy depends on the size , number and location of the lesion(s) [**8**]. In this case we treated the patient with intramuscular (I.M) Glucantim 50mg/kg/day for 28 days with healing almost complete. More injections were recommended until he reached the complete clearance of the lesion. Onychomadesis do not need any specific treatment.

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