

A Rare Cases of Onychogryphosis Caused by Paronychial Form of Cutaneous Leishmaniasis

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Abstract

Observation: Onychogryphosis is an acquired nail plate change. It often affects the toenail. It is a thickening of the nail plate, with associated gross hyperkeratosis and increased curvature .

Cutaneous Leishmaniasis (CL) is a major world health problem that is growing epidemically in many areas of the world including our region (Syria). We described unusual case of Onychogryphosis caused by Paronychial Form of Cutaneous Leishmaniasis in the right index finger which has not been previously reported .

Introduction

We described unusual case of Onychogryphosis caused by Paronychial Form in right index finger.

Case Report

A 45 year-old female had an infiltrated swollen desquamation and erythematous ill-defined plaque on the dorsal aspect of the right index finger extending to the proximal nail fold .the lesion is ulcerative and crusted around the nail fold with onychogryphosis since four months (**Figures 1,2 and 3**). The rest of the fingers and nails are normal. 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 Onychogryphosis .

Treatment: Initially the patient was treated with intra musculer (I.M) injection 50mg/kg/day, but she stopped the medication because it was not

tolerab le. Then she has been treated successfully with six cycles cryotherapy (liquid nitrogen) every 15 days with complete cure for both the leishmania lesion on the index finger and also for the onychogryphosis (**Figure 4**).

Discussion

Onychogryphosis is an acquired nail plate change. It often affects the toenail [1]. It is a thickening of the nail plate, with associated gross hyperkeratosis and increased curvature. It can be oyster-like or resemble a ram's horn [2]. Possible causes of onychogryphosis include continuous pressure and friction on the toenails due to improper footwear, trauma, ichthyosis, psoriasis, fungal infection, as well as cognitive impairment or behavioral problems [3].

It is common on the great toenail of elderly patients and can be associated with self-neglect, homelessness, dementia, old age, trauma, peripheral circulation disorders, diseases of the central nervous system, and foot abnormali-



Figure 1. Cutaneous leishmaniasis in index finger



Figure 2. An infiltrated swollen desquamation and erythematous ill-defined plaque on the dorsal aspect of the right index finger

ties, such as hallux valgus, elephantiasis, long-standing poor personal care, hyperuricemia, and pressure from improper footwear. All fingers and toenails can be affected in hereditary onychogryphosis [2].

Cutaneous Leishmaniasis (CL) is a major world health problem that is growing epidemically in Syria. According to the World Health Organization (WHO), leishmaniasis is endemic in 88 countries with 350 million persons at risk. Approximately 1.5 million new cases of



Figure 3. Onychogryphosis



Figure 4. Complete remission of (CL) and onychogryphosis

cutaneous leishmaniasis are reported annually, with two thirds of cases in six countries: Afghanistan, Algeria, Brazil, Colombia, Iran, and Syria [4, 5]. CL is the most common manifestation of leishmaniasis with approximately 1.5-2 million new cases per year [6]. It is a parasitic disease caused by *Leishmania* and transmitted by the bite of some species of sandflies and it affects various age groups [7]. 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 [8].

(CL) *Leishmania* on the fingers, and paranochial formes are uncommon presentation of CL [9].

Inflammation around the nail in both forms, sausage like (CL) and paranochial, leads to a malfunction in nail growth like onychogryphosis, onychomadisis [10]. Onychogryphosis caused by paranochial form of Cutaneous Leishmaniasis (CL) has never been described in literature

Conclusion

Cutaneous Leishmaniasis is a major world health problem that is growing epidemically in many areas of the world including our region (Syria). We described the first case of onychogryphosis caused by paranochial form of Cutaneous Leishmaniasis.

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