

Leishmanial dactylitis: an unusual clinical presentation

Nasrin Saki^{1,2} MD, Hamid Godarzi^{1,2} MD, Alireza Heiran³

Affiliations: ¹Molecular Dermatology Research Center, Shiraz University of Medical Sciences, Shiraz, Iran, ²Department of Dermatology, Shiraz University of Medical Sciences, Shiraz, Iran, ³Student Research Committee, Shiraz University of Medical Sciences, Shiraz, Iran

Corresponding Author: Nasrin Saki, Faghighi Hospital, Zand Avenue, Shiraz, 7134844119 Iran, E-mail: Nasrinsa85@yahoo.com

Abstract

Cutaneous leishmaniasis (CL) is one of the most common endemic diseases in Iran. It has a diverse spectrum of clinical manifestations. Herein we present a woman with leishmanial dactylitis, which is a very rare clinical form of CL. Successful treatment consisted of parenteral pentavalent antimonials for two months. Leishmanial dactylitis can be easily misdiagnosed as bacterial or fungal infections, psoriasis, or even malignancies. Accordingly, it should be considered in the differential diagnosis of dactylitis in endemic areas and in travelers from endemic countries.

Keywords: leishmaniasis, dactylitis, meglumine antimoniate

Introduction

Cutaneous leishmaniasis (CL) is one of the most common endemic diseases in Iran [1]. It is often considered as a group of diseases because of the varied spectrum of clinical manifestations, which range from small cutaneous nodules to gross mucosal tissue destruction [2, 3].

Case Synopsis

An otherwise healthy 68-year-old woman from a rural area of southern Iran presented to the clinic with a 3-month history of nail deformity accompanied by swelling and erythema of the fourth digit of her left hand. Physical examination revealed total destruction of the nail apparatus and induration of the whole digit causing sausage digit deformity (**Figure 1**). There was no history of trauma. The lesion had been diagnosed as having a bacterial infection

and the patient had been previously treated several times with intravenous antibiotics. Polymerase chain reaction (PCR) on agarose gel 1.5%, stained with ethidium bromide was performed and revealed *Leishmania tropica*, which led to diagnosis of "leishmanial dactylitis". The dactylitis was successfully treated with daily intramuscular injections of 20 mg/kg meglumine antimoniate for 20 days and daily topical sertaconazole for two months. In follow up, two months after starting the therapy, the lesion was healed almost completely.



Figure 1. Nail deformity accompanied by swelling and erythema of the fourth digit of left hand. Total destruction of the nail apparatus and induration of the whole digit caused sausage digit deformity.

Conclusion

Although old world cutaneous leishmaniasis usually causes a single, self-healing, and uncomplicated skin lesion mainly on the exposed areas of body, several rare clinical forms in Iran have been reported and characterized. These include lupoid, sporotrichoid,

erysipeloid, sarcoidosis-like, lymphoma-like, or acne agminata [4-6]. This clinical polymorphism explains the misleading nature of the disease, as with our case. Leishmanial dactylitis is a very rare manifestation. Leishmanial dactylitis can be easily misdiagnosed as bacterial or fungal infections, psoriasis, or even malignancies.

It has been speculated that leishmanial dactylitis is caused by infiltration of parasites and chronic inflammatory cells. However, the reason for the occurrence of this type of presentation is unclear and may relate to the contribution of factors such as the specific species involved, the host's immune response, the hormonal changes affected with increasing age, and the changes in skin barrier with aging [4, 7, 8].

Therefore, leishmanial dactylitis should be in the differential diagnosis of dactylitis in endemic areas and in travelers from endemic countries.

References

1. World Health Organization. Status of endemicity of cutaneous leishmaniasis—Data by country. Geneva: World Health Organization; 2013. [Online] Available from: <http://apps.who.int/gho/data/view.main.NTDLEISHCENDv> [Accessed on 17th October, 2016]
2. World Health Organization. Report of the consultative meeting on cutaneous leishmaniasis. Geneva: World Health Organization; 2007. [Online] Available from: http://www.who.int/leishmaniasis/resources/Cutaneous_leish_cm_2008/en/ [Accessed on 17th October, 2016]
3. Reithinger R, Dujardin JC, Louzir H, Pirmez C, Alexander B, Brooker S. Cutaneous leishmaniasis. *Lancet infect dis.* 2007;7(9):581-96. [PMID: 17714672]
4. Moravvej H, Barzegar M, Nasiri S, Abolhasani E, Mohebali M. Cutaneous leishmaniasis with unusual clinical and histological presentation: report of four cases. *Acta Med Iran.* 2013;51(4):274. [PMID: 23690110]
5. Salmanpour R, Handjani F, Zerehsaz F, Ardehali S, Panjehshahin MR. Erysipeloid leishmaniasis: an unusual clinical presentation. *Eur J dermatol.* 1999;9(6):458-9. [PMID: 10491503]
6. Ayatollahi J, Ayatollahi A, Shahcheraghi SH. Cutaneous leishmaniasis of the eyelid: a case report. *Case rep infect dis.* 2013. [PMCID: PMC3810313]
7. El-Hassan AM, Zijlstra EE. Leishmaniasis in Sudan. *Cutaneous leishmaniasis. Trans R Soc trop med and Hyg.* 2001;95(Supplement 1):S1-7. [PMID: 11370248]
8. El Hassan AM. Cutaneous leishmaniasis in Al-Ahsa Oasis in Saudi Arabia and in Sudan: A comparative study. *Saudi J Medicine and Medical Sciences (SJMMs).* 2013;1(2):64. doi: 10.4103/1658-631X.123642.