

Case Report

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First case of cutaneous leishmaniasis in Karaman region

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Abstract

Leishmaniasis is an infectious disease caused by intracellular parasitic protozoan species. Leishmaniasis can be classified as old world and new world. The clinical form seen in Central and South America is called New World Cutaneous Leishmaniasis (CL). The clinical form, most commonly seen in the Middle East, Southern Europe, Southwest Asia and Africa is called Old World CL. A 34-year-old male patient applied to the dermatology clinic due to crusty wounds located on his right leg and right hand. Dermatological examination revealed several erythematous plaques with hemorrhagic crusts, 2x3 cm in size, raised from the skin in the right tibial region, and a purplish erythematous plaque with a sharply circumscribed skin crusted in the dorsolateral of the right hand. Amastigote forms of leishmania were detected by Giemsa staining. The patient, was planned to be injected with 2 ml meglumine antimoniate twice a week for four weeks.

Keywords: leishmaniasis, cutaneous leishmaniasis, meglumine antimoniate, amastigote

1. Introduction

Leishmaniasis is an infectious disease caused by species of intracellular parasitic protozoa. Protozoa are transmitted by two types of sandfly vectors, sandflies for the old world and lutzomia for the new world. Protozoa can inhabit different mammalian reservoirs. Leishmaniasis can be classified into old world and new world according to the geographical areas where it occurs. The clinical form seen in Central and South America is called "New World Cutaneous Leishmaniasis (CL)(1). The clinical form, which is most commonly seen in the Middle East, Southern Europe, Southwest Asia and Africa and called eastern furuncle in our country, is called "Old World CL" The four main clinical types are cutaneous leishmaniasis (CL), diffuse cutaneous leishmaniasis, mucocutaneous leishmaniasis (ML) and visceral leishmaniasis (VL)(2,3). Here, a 34-year-old case of cutaneous leishmaniasis, an uncommon condition in the Karaman region, is presented.

2. Case Report

A 34-year-old man was admitted to the dermatology outpatient clinic with crusted wounds on his right leg and right hand, which spread over time and did not heal. In the anamnesis, we learn that he previously received various topical and systemic antibiotic treatments and that there was no regression of the lesions. The lesions had developed after traveling to Syria six months ago. During dermatological examination, several

erythematous plaques with hemorrhagic crusts on the right tibial region, 2x3 cm in size, with raised edges from the skin were detected. A well-demarcated purplish erythematous plaque in a skin crust was detected on the dorsolateral aspect of the right hand (Fig.1.). The complete blood count, lower values, asthma, urea, creatinine and sedimentation of the patient who had no history of tuberculosis were within the normal range. Amastigote forms of leishmania were detected by giemsa staining performed without smear (Fig. 2.). The patient, whose diagnosis of cutaneous leishmaniasis was confirmed, was to receive an injection of 2 ml of meglumine antimoniate (Glucantime®, Aventis Pasteur Vaş Tic. Informed consent was obtained from the patient for photographs and case presentation.



Fig.1. Sharply circumscribed crusted plaques in the right pretibial region and right hand dorsal

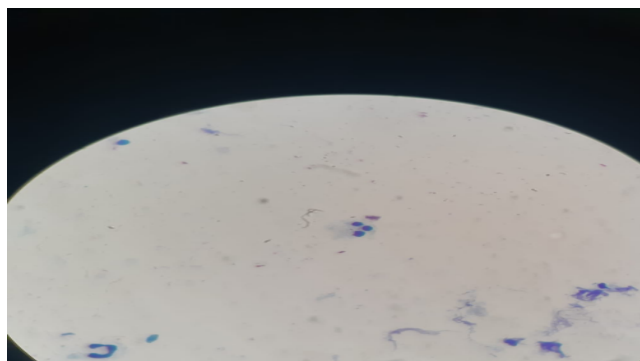


Fig. 2. Amastigotes seen on smear staining with giemsa

3. Discussion

In cases of leishmania, it is difficult to determine the incidence of the disease. Causing factors may be the subclinical course of the disease and under-reporting, as it affects the poorer sections of society more. It is estimated that 2 million people are infected every year worldwide(4). Cutaneous and mucocutaneous leishmaniasis constitute the majority of cases. Climate change, migration, urbanization, reduction of forests, improved mobility possibilities can be counted among these factors (5). Leishmaniasis was a common disease in our country, especially in the southeastern Anatolia region, before 1950. After that date, the use of DDT to control malaria reduced the population of vector sandflies infected. In this way, the disease has become a sporadic situation in other regions by being limited to the southeastern Anatolia region. The number of new CL cases increased significantly in Şanlıurfa after 1980 and in Çukurova after 1985 (6,7). The most important factors for the spread of the disease, which is limited in southeastern Anatolia, are the ease of transport and the abundance of travel for business and tourist purposes, the increase in the migration of rural areas to cities for various reasons, and therefore the lack of infrastructure and the need to shelter in unsanitary conditions (8). In our case, there was also a story of travel to Syria. The gold standard for confirming the diagnosis of CL is to detect *Leishmania* amastigotes by microscopy in the smear made with serous material obtained from the lesion suspected for diagnosis, and to see the promastigotes cultured on NNN medium (9). In our case, amastigote forms were observed during the examination carried out without smear. In Turkey, pentavalent antimony compounds are preferred in the treatment of cutaneous leishmaniasis. Meglumine antimonate and sodium stibogluconate are administered intralesionally or systemically, depending on the condition and location of the lesion. In addition to drug therapy, physical applications such as cryotherapy, laser, local heating, surgical excision, and treatment options such as immunotherapy are also used (10,11,12). When CL is left untreated, it heals with innate immunity with atrophic scarring. Since CL does not cause significant physical morbidity or mortality, it is not considered a serious public health problem in endemic countries. However, depression, anxiety, and decreased quality of life have occurred in people with an active CL lesion or CL scars.

For this reason, CL can be a factor of social and mental morbidity even after recovery (13). Unplanned urbanization without infrastructure is known to be the major global risk factor for leishmaniasis. This situation causes the disease to continue, especially in anthroponotic foci. Deficiencies in infrastructure such as water and sewage create an unhealthy living environment in these neighborhoods, which are emerging rapidly and unplanned in outlying parts of cities (8). Our case is important because it is the first case of *Leishmania* detected in the Karaman region. It is important to take a detailed patient history in suspected cases and to keep in mind that cases may be found in non-endemic regions for the differential diagnosis of lesions. The laboratory tests needed to confirm the diagnosis must be planned quickly and the chain of infection must be broken by treating patients correctly.

Conflict of interest

The authors declared no conflict of interest.

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Authors' contributions

Concept: H.M.A., N.D., Design: H.M.A., N.D., Data Collection or Processing: H.M.A., N.D., A.R.D., Analysis or Interpretation: H.M.A., N.D., A.R.D., Literature Search: H.M.A., Writing: H.M.A., N.D., A.R.D.

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