

A profile of 60 patients of cutaneous leishmaniasis visiting Dermatology Departments of Hayatabad Medical Complex and Lady Reading Hospital, Peshawar

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Abstract *Objective* To document the profile of patients of cutaneous leishmaniasis (CL) visiting Dermatology departments of Hayatabad Medical Complex & Lady Reading Hospital, Peshawar.

Methods Irrespective of age and sex, a total of 60 patients with a clinical diagnosis of CL were enrolled for the study.

Results A total of 38 male and 22 female patients were enrolled for this study. Age range of the patients was 15 months to 50 years. A sizeable number of patients presented with nodular presentation.

Conclusion CL is usually seen in males on exposed areas as noduloulcerative lesions.

Key Words

Cutaneous leishmaniasis, type of skin lesions, duration.

Introduction

Cutaneous leishmaniasis (CL) is a parasitic disease caused by various species of genus *Leishmania* and transmitted by bites of sandfly. The disease is endemic in 88 countries of the world.¹ It has been estimated that 1.5 million new cases of cutaneous leishmaniasis occur annually and more than 80% affect individuals in developing countries.¹ Amastigotes of the parasite are found in the dermis of the skin of patients suffering from CL. It is round or oval, 2-3 μm in diameter and aflagellate.¹ Commonly the infection is zoonotic, human beings being accidental hosts. However, human beings can be

reservoirs in an anthroponotic cycle². Usually CL is caused by *Leishmania* species that cause cutaneous disease only, however, some species causing visceral leishmaniasis can also cause cutaneous leishmaniasis.³

Objective of this study was to have an overall view of this disease from the perspective of its presentation, duration and treatment.

Methods

The study was conducted in the Departments of Dermatology Hayatabad Medical Complex Peshawar and Lady Reading Hospital, Peshawar. It was an observational study. Irrespective of age and sex of the patients, a total of 60 patients were enrolled for this study. Detailed history was taken from each patient and findings were recorded on a predesigned proforma. Clinical diagnosis was done by a senior consultant

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dermatologist and it was confirmed by one other senior colleague. Smear for Leishman-Donovan bodies was taken from all enrolled patients.

Results

A total of 60 patients were enrolled for this study including 38 males and 22 females. Age of enrolled patients ranged from 15 months to 50 years. Thirty eight patients (63%) belonged to rural population while 22 (37%) belonged to urban population. Most of the patients presented with history of skin lesions lasting for less than 6 months (**Table 1**). The commonest presentation of cutaneous leishmaniasis seen was nodular type, seen in 36 patients (**Table 2**).

48 (80%) patients were treated with antibiotics without effect. Only 20% patients received first-line treatment in the form of intralesional or intramuscular injection meglumine antimoniate. However, dose of the drug was not adequate.

Before coming to dermatologist, 44 patients (73%) took treatment from doctors while 16 patients (27%) were treated by paramedics. Half of enrolled patients were enrolled by doctors for consultation by a dermatologist.

Discussion

CL is caused by parasites belonging to various species of genus *Leishmania*.¹ The commonest ones are *Leishmania major*, *L. tropica* and *L. infantum*.² Both wet and dry type of lesions can occur.³ Clinical lesion may start as papule evolving into nodule and crusted ulcerative plaque over due course of time.^{4,5} It can affect people of any age or sex. It is endemic in countries like Brazil, Iran, Afghanistan and Pakistan.¹

In our study we observed that comparatively more males had cutaneous leishmaniasis as compared to females. This finding is in accordance with the earlier study conducted by

Table 1 Duration of disease in the study population (n=60).

Duration of disease	N (%)
<6 months	50 (83.3)
6 months to 12 months	5 (8.3%)
>12 months	5 (8.3%)

Table 2 Types of morphological lesions (n=60)

Type of skin lesions	N (%)
Nodule	36 (59.4)
Ulcer	12 (19.8%)
Plaque	8 (13.2%)
Papule	4 (6.6)

Ayub *et al.*⁶ in Multan, Pakistan. They reported that the incidence of cutaneous leishmaniasis in male vs female was 3:2. The reason for this male preponderance of CL could be due to the fact that males are mostly responsible for earning livelihood in our country. They travel far and wide for this purpose. They might go to endemic areas thus leading to more chances of CL in male population.

We observed that CL was seen in all age groups, from 15 months upto 50 years. This finding is logical because no age is immune to cutaneous leishmaniasis. Anyone who is nonimmune can get CL whenever parasite is inoculated into the skin by bite of sandfly.

In our study we observed that a higher number of patients presented with nodular skin lesions. This finding simulates the observation of Kicarslan *et al.*⁷ from Salnifura, Turkey. They observed that 57.4% of their patients had noduloulcerative skin lesions. One reason for this high proportion of patients having nodular or noduloulcerative lesions could be that usually patients do not take advice from doctors when their skin lesions are in papular stage, so the size of their skin lesion goes on increasing until it converts into a nodule.⁸ At this stage they get worried and present to the doctors. The second reason could be that due to lack of awareness of this disease medical personnel are unable to diagnose the disease at the early stage of

evolution. Thus this skin disease lingers on leading to chronicity and nodule formation.

Most of our patients came to us with history of skin lesions for less than 6 months. This has been reported in earlier studies, as well.^{9,10} The reason for this could be that CL is endemic in many parts of our country. Therefore, people are aware of this disease.

Conclusion

Most of our patients presented with advanced stage of the disease because they were not diagnosed and treated in time. Adequate training of the doctors and paramedics in the endemic areas is highly desirable.

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