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Original Article

Clinical features of patients diagnosed with recidivan cutaneous leishmaniasis

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Abstract

Aim: Cutaneous leishmaniasis (CL) is a disease with chronic nodulo-ulcerative lesions on the skin that heals with atrophic scars. This study aims to investigate the clinical features of patients admitted to our clinic and diagnosed as recidivan CL.

Material and Methods: This retrospective study included 11 patients who were admitted to our skin and venereal diseases clinic between October 2017 and July 2019 and who were diagnosed as recidivan CL by anamnesis, clinical and microscopic examination. Clinical characteristics of the patients such as age, sex, survival in the endemic region, intralesional or systemic antimony therapy and number, location, size and duration of the lesions were recorded.

Results: Seven (63.6%) of the 11 patients were male and 4 (36.4%) were female. The mean age of the patients was 13.8 ± 4.04 years. All of the patients in the study had one lesion on their face. The mean lesion duration was 36.27 ± 24.3 months. The mean lesion size was 6.9 ± 3.4 cm. Before the diagnosis, 2 (18.2%) patients received intralesional antimony treatment, 1 patient (9.1%) received systemic antimony treatment, and 8 (72.7%) patients did not receive any treatment.

Conclusion: In conclusion, recidivan CL is a rare form of chronic CL. Because parasites are rare in the lesions, the diagnosis is usually delayed and therefore the lesions can cause destruction and deformity. Prospective studies with a large number of patients are needed to better understand the clinical findings of recidivan CL.

Keywords: Chronic cutaneous leishmaniasis; recidivan

INTRODUCTION

Cutaneous leishmaniasis (CL) is a disease caused by Leishmania-type parasites that progress with nodular ulcerative lesions on the skin and heals with atrophic scarring. (1-3) CL is generally divided into acute and chronic forms. Chronic form is divided into two as lupoid CL and recidivan CL. Acute CL lesions usually heal within 1-2 years, leaving a collapsed scar at the lesion site. Chronic CL occurs at a rate of 5-10% and lesions last for more than two years. Primary cutaneous lesions which persist for more than 2 years are called lupoid CL but lesions which reactivate after years at the edge of the healing primary lesion scar is called recidivan CL. (4,5) Although numerous studies have been conducted on the clinical features of patients with CL,(6-8) the number of studies examining the clinical features of patients with recidivan CL is scarce. (9)

In this study, clinical features of patients admitted to our clinic and diagnosed as recidivan CL were investigated.

MATERIAL and METHODS

This retrospective study included 11 patients who were admitted to Şanlıurfa Training and Research Hospital Skin and Venereal Diseases Clinic between October 2017 and July 2019 and diagnosed with recidivan CL by anamnesis, clinical and microscopic examination. Smear was prepared from the skin lesions of the patients who were thought to have CL with anamnesis and clinical

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findings. The diagnosis of CL was made by the presence of amastigote in the smears prepared from the skin lesions of the patients who were thought to have CL with anamnesis and clinical findings.

Clinical characteristics of the patients such as age, sex, survival in the endemic region, intralesional or systemic antimony therapy, number, location, size and duration of the lesions were recorded. Statistical analyzes were performed using SPSS 21.0 (SPSS Inc., Chicago, IL, USA). Continuous data were calculated as mean ± standard deviation (SD) and categorical data were calculated as frequency (%). Ethics committee approval was received for this study.

RESULTS

Seven of the 11 patients (63.6%) were male and 4 (36.4%) were female. The mean age of the patients was 13.8 ± 4.04 years. Ten (90.9%) patients had a history of survival in the endemic region. All of the patients in the study had one lesion on their face. The lesions were located on the cheek in 10 (90.9%) patients and on the forehead in 1 (9.1%) patient (Figures1, 2). Nine (81.8%) lesions were plaque and 2 (18.2%) lesions were papular. The mean lesion duration was 36.27 ± 24.3 months. The mean lesion size was 6.9 ± 3.4 cm. Cutaneous smears were performed by a dermatologist experienced in cutaneous smears and amastigotes were seen in all smears.(Figure 3) Before the diagnosis, 2 (18.2%) patients received intralesional antimony treatment, 1 (9.1%) received systemic antimony treatment, and 8 (72.7%) patients did not receive any treatment.

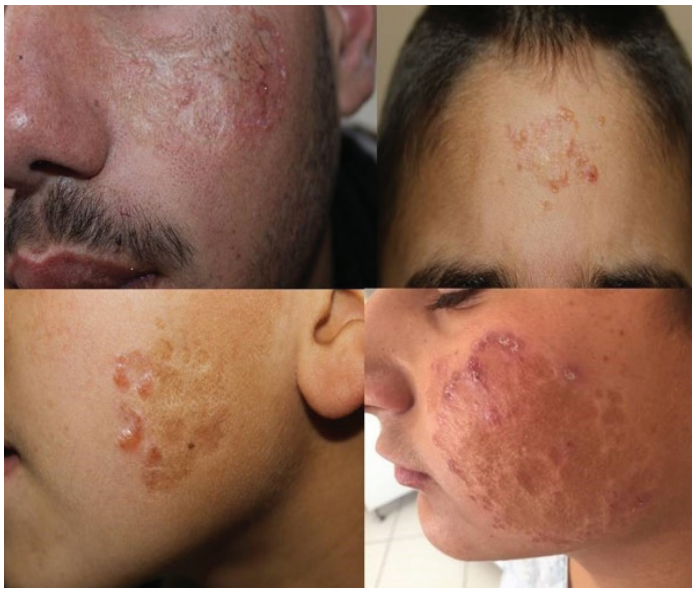

Figure 1. Recidivan CL lesions on the face.

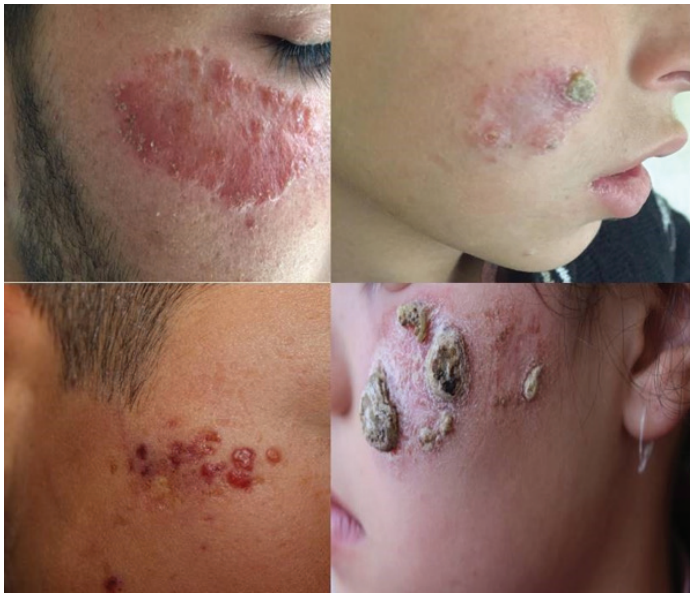

Figure 2. Recidivan CL lesions on the face.

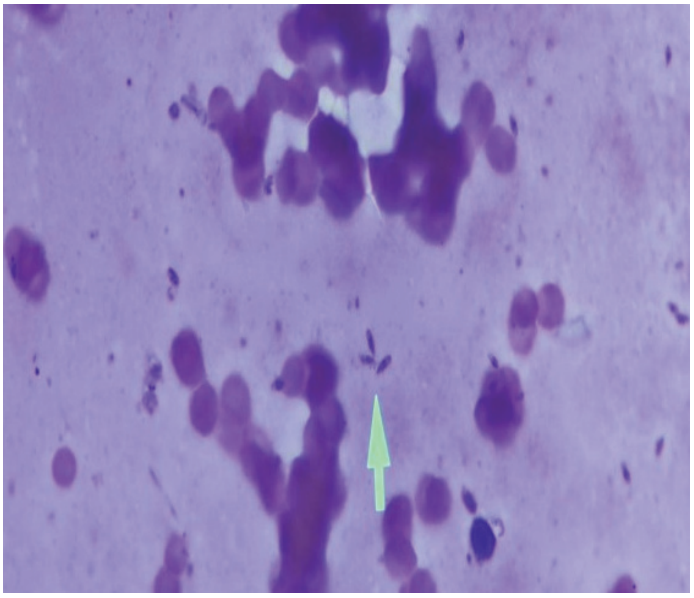

Figure 3. Leishmania amastigotes seen from samples taken from cases (Giemsa,100X)

DISCUSSION

CL is generally divided into acute (wet and dry type) and chronic (lupoid CL and recidivan CL) forms. In dry type CL, the lesions consist of multiple, dry, ulcerated nodules and plaques. In wet type CL, the lesions are severely inflamed and ulcerated. Often, numerous lesions heal with scarring that can cause dysfunction. (6,10-13) Acute CL lesions usually heal within 1-2 years, leaving a collapsed scatris at the lesion site. Lesions that last longer than two years are classified as chronic CL. (14) Primary lesions lasting longer than 2 years are defined as lupoid CL and the presence of reactivation after months-years on the healed primary lesion scar is defined as recidivan CL. Recidivan CL is nearly always caused by L. tropica in endemic areas (4,5). Recidivan CL lesions are not specific reactions to

the species of the parasite, but are due to host reaction. It has a chronic course and has been reported to extend to 20-30 years in some cases. Even after years of primary lesion healing, new lesions may occur after trauma. (11-13) Ten (90.9%) of the patients in our study were living in Şanlıurfa which is endemic for CL. However, in our study, we could not identify the species of leishmania causing recidivan KL because we did not determine species.

The incidence of CL lesions in two sexes varies in studies. While female dominance is reported in most studies (8,15), there are also studies indicating that CL is more common in men. (16,17) In our study, 7 (63.6%) of the patients diagnosed with recidivan CL were male and 4 (36.4%) were female. The reason for male dominance may be due to the fact that women in Şanlıurfa were less frequently admitted to hospital for sociocultural reasons or because the study included a small number of patients.

Recidivan CL lesions, such as acute CL lesions, are usually seen in individuals under the age of 20 years. The lesions are usually characterized by reddish brown papules on the face and a scar that progresses from the center to the periphery. In contrast to acute CL lesions, the lesions tend to be larger in size. These lesions usually occur in cold weather and ulcerate during the warm season. They may have psoriasiform forms. Rarely, keloidal and verrucous forms can be seen in the lower extremities. (9,12,13,18,19)

In our study, the mean age of patients with recidivan CL was under 20 years of age, consistent with the literature. In our study, the lesions were located in the facial region of all patients, similar to the data in the literature. Lesions consisted of peripherally progressing yellowish-brown papules-plaques with scarring in the center. There were no psoriasiform, verrucous and keloidal lesions in our study. In our study, the mean size of recidivan CL lesions was 6.9 ± 3.4 cm. This may be due to misdiagnosis or delay in diagnosis or resistance to treatment.

Low levels of amastigotes in lesions may cause delay in diagnosis and lesions may continue for years. There is a marked granulomatous reaction caused by cellular immune response in the examination of biopsy specimens, but the number of amastigotes is low. Since parasites are rare in lesions, they can only be found with careful examination. In culture, it is possible to produce parasites, albeit difficult. (9,12,13) In our study, amastigotes were seen in the lesions of all patients in cutaneous smears performed by a microbiologist experienced in smears. No additional culture or histopathological examination was performed.

Recidivan CL lesions are usually resistant to treatment, which leads to destruction and deformity when left untreated.(9,10) In our study, 2 (18.2%) patients received intralesional antimony treatment and 1 (9.1%) patients received systemic antimony treatment before the diagnosis, but the treatment was not effective

CONCLUSION

In conclusion, recidivan CL is a rare form of chronic CL. The lesions are usually seen on the face and the diagnosis usually delays because the parasite is rare. Therefore, lesions can cause destruction and deformity. Prospective studies with a large number of patients are needed to better understand the clinical findings of recidivan CL.

Competing interests: The authors declare that they have no competing interest.

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