

Symmetrical Cutaneous Leishmaniasis

Claudio Guarneri and Fabrizio Guarneri

Dipartimento di Medicina Sociale del Territorio, Sezione di Dermatologia, Università di Messina, Viale Annunziata, Residence dei Fiori, villa 7, IT-98168 Messina, Italy. E-mail: claudioguarneri@tiscali.it
Accepted October 22, 2004.

Sir,

Cutaneous leishmaniasis (CL) is a protozoan disease present in Old and New Worlds (1, 2). It is endemic in the Mediterranean basin, particularly in the rural areas of Sicily where almost 60% of Italian cases occur. The disease is caused by parasites of the genus *Leishmania infantum*, carried by specific species of sandflies as *Phlebotomus perniciosus* and *Phlebotomus perfiliewi perfiliewi* (3, 4). The main reservoir of human infection is represented by dogs and rodents, and population groups at greater risk include shepherds, farmers and people living in the country, with no distinction as to sex or age (1). Although the classical presentation of the disease consists of an erythematous papule/nodule appearing on bite-exposed areas, which progresses to an ulcer and spontaneously heals over months to years, many other forms have been reported, depending on the infecting species and the host response (1, 2). We report three cases of CL, characterized by symmetrical foci.

CASE REPORTS

Case 1. A 76-year-old housewife, born and always residing in Sicily, was referred to our department because of 6 months' duration of two symmetrical, slowly enlarging, rounded erythematous-infiltrative stains, covered by thin and strongly adherent silvery

scales, localized on the dorsum of the distal third of both forearms (Fig. 1). The lesions were approximately 2×1.5 cm and 1.5×1 cm in size. No other skin or mucosal lesions were observed.

The patient had recently been hospitalized because of chronic obstructive pulmonary disease, but routine blood tests were within normal limits, except for a slight increase of transaminase and γ -glutamyl transpeptidase.

Microscopic examination of dermal scrapings of both lesions stained with Giemsa showed numerous *Leishmania* amastigotes as many small round-ovoid



Fig. 1. Symmetrical lesions on the dorsum of the distal third of both forearms (case 1).

cells, with thin membranes, relatively large nuclei and distinct rod-shaped kinetoplasts.

Therapy with local infiltration of meglumine antimoniate was started, 1 ml twice a week. At 1-month follow-up, only a light erythematous state of both areas was present, followed by complete resolution of skin lesions in a week.

Case 2. A 35-year-old man, an engineer with trekking as a hobby, had a 3-month history of two hard elastic papulo-nodules on the posterior aspect of the lower part of both legs. These lesions, measuring 1.5–2.5 cm in diameter, were bright-red to violaceous-red, badly demarcated by perilesional oedema and with a dark haematic crust in the center (Fig. 2). General physical examination was otherwise unremarkable.

The patient denied any hike in the last year. However, he referred some bite-like lesions in the summer, involving the face and the upper limbs, resolved in a week or two.

A tissue smear from each lesion was obtained: microscopic evaluation confirmed the clinical suspect by demonstrating the *Leishmania* amastigotes within the histiocytes as well as extracellularly.

The lesions were treated by infiltration of meglumine antimoniate weekly for 1 month, 1.5 ml each injection, resulting in a complete healing. No adverse side effects or relapses were observed; only a little scar was noted on the left leg at the end of treatment.

Case 3. A 28-year-old man, a student in medicine, who reported a 4-month history of two asymptomatic, oval-shaped, brick-red, mildly indurated, erythematous-infiltrative plaques, with the major diameters measuring 1 and 1.5 cm, symmetrically localized on both supraclavicular regions. The patient was not able to explain how these lesions started; he remembered only a slow growth in size in the last months, more evident in the right one, without any change in their appearance. Medical examination revealed no palpable lymph nodes or other skin lesions. The patient's health was otherwise good and routine blood tests were normal.

Histology of a punch-biopsy specimen, obtained from the largest lesion, showed a diffuse granulomatous infiltrate in the dermis, composed of lymphocytes and histiocytes, with numerous Leishman-Donovan bodies in the cytoplasm of the latter. A skin smear taken from the lesion on the opposite side and stained with Giemsa revealed *Leishmania* located extracellularly and intracellularly.

Meglumine antimoniate was given intralesionally at the dose of 1 ml twice a week for 3 consecutive weeks, with final restitutio ad integrum. No relapses were observed at 3 and 6 months follow-up.

DISCUSSION

To the best of our knowledge, the symmetrical distribution of two CL lesions has not been described previously in the



Fig. 2. Symmetrical lesions on the distal third of both legs (case 2).

literature. The atypical pattern in our cases probably represents a very particular coincidence: the same or two different infected sandflies, have bitten the host, at about the same time, on the same symmetrical body sites.

The tissue impression smear technique, with direct examination for amastigotes on Giemsa-stained preparations, has been reported to have a high sensitivity, comparable with histopathology, but is easier to perform and particularly useful in cases of multiple suspect lesions (5).

Treatment with intralesional meglumine antimoniate represents the first choice in localized instances of leishmaniasis, resulting, also in our cases, in a prompt healing – usually without undesired side effects and at a relatively low cost (6).

REFERENCES

1. Randazzo SD, Guarneri B, Messina V, Palazzo R. Leishmaniosi cutanea mediterranea. Schaffhausen: Cilag, 1990: 6–45.
2. Samady JA, Schwartz RA. Old World cutaneous leishmaniasis. *Int J Dermatol* 1997; 36: 161–166.
3. Ministero della Salute (homepage on the Internet), Roma: Ministero della Salute, 2004 (updated 16 March 2004; cited 27 August 2004). Available from: <http://www.ministerosalute.it/promozione/malattie/datidefcons.jsp>.
4. Bettini S, Gramiccia M, Gradoni L, Biggio P, Loi R, Cottoni F, et al. Leishmaniasis in Sardinia. IV. Epidemiological appraisal of cutaneous leishmaniasis and biochemical characterization of isolates. *J Trop Med Hyg* 1990; 93: 262–269.
5. Bahamdan KA, Khan AR, Tallab TM. Value of touch preparations (imprints) for diagnosis of cutaneous leishmaniasis. *Int J Dermatol* 1996; 35: 558–560.
6. Aste N, Pau M, Ferreli C, Biggio P. Intralesional treatment of cutaneous leishmaniasis with meglumine antimoniate. *Br J Dermatol* 1998; 138: 370–371.