Unusual form of cutaneous leishmaniasis: Erysipeloid form

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Available online 19 January 2011

KEYWORDS
Leishmaniasis; Cutaneous; Erysipeloid

Summary We report the epidemiological and clinical characteristics of the erysipeloid form of cutaneous leishmaniasis as well as its diagnostic and therapeutic challenges.

Case report: A 63-year-old woman, with no medical history, presented with a one-month history of erythematous nasal swelling. The lesion appeared after an accidental trauma. Erythematous infiltrative plaque was noted on the center of the face. There were also crust formations on the traumatic region. Despite local treatment and oral antibiotherapy, there was no improvement. The diagnosis of cutaneous leishmaniasis was confirmed by positive skin smears. Histopathological examinations of a skin biopsy showed no malignancy. The patient was treated intramuscularly with 10 mg/kg per day systemic meglumine antimoniate with partial regression of symptoms.

Conclusion: The erysipeloid type is a rare and unusual presentation of cutaneous leishmaniasis that often causes late diagnosis. Diagnosis is confirmed by the demonstration of the parasite by skin smear, histopathological examination and polymerase chain reaction. There are various therapeutic options. The evolution is generally favourable.

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was administered orally for 7 days without clinical improvement. Physical examination revealed an erythematous infiltrative plaque covering the center of the face (nose and cheeks) with a grossly symmetrical pattern of 5 cm lesions covered by places with crusts (Fig. 1). Endonasal examination did not reveal any mucosal lesion and the rest of the examination was normal. The patient was apyretic and the biological and inflammatory evaluation tests were normal. The patient was admitted to hospital and received broad spectrum antibiotic treatment with daily local care in prevention of post-traumatic cellulitis risk. Evolution was marked by the absence of clinical improvement with a tendency to spreading of erythematous lesions (Fig. 2). Biopsy of the lesion did not reveal any sign of malignancy. At that stage, CL was suspected and confirmed by positive nasal tissue smears, which demonstrated leishmania amastigotes forms. A treatment with 10 mg/kg per day systemic meglumine antimoniate (Glucantime®) administered intramuscularly was conducted. The evolution was marked by partial healing of the lesions.

**Discussion**

In Tunisia, the classic form of CL is nodular with ulcers and crusts. The manifestation is an infiltrative nodule with a central crater covered with a yellow brownish crust. Spontaneous healing occurs within a few months with filling of ulcer, leaving a clear or pigmented scar and conferring lasting immunity [1]. Cases of CL in its erysipeloid form have been reported in Iran, Pakistan, Turkey and Tunisia [1–4]. It differs from the other forms by its clinical features but also by the predominantly affected population [4].

In the literature, the incidence rate of erysipeloid form of CL ranges between 0.05 and 3.2% [1,3]. This type predominantly affects elderly females [4]. Clinical features are erythematous infiltrative ill-defined plaque over the face covering the nose and both cheeks [1].

The etiology of this type is unknown. Altered host immune response due to senility, a specific type of parasite, hormonal changes at menopause, skin quality alteration due to ageing were evoked to explain this particular form [1,2,4]. Post-traumatic cutaneous lesions can facilitate the occurrence of this type of disease [5].

Our patient presented with all the epidemiological features characterizing this particular form. She was native of an endemic region of leishmaniasis, of old age, menopaused with a history of nasal trauma followed by the occurrence of the nasal lesion.

In cases of localized form, these lesions can evoke bacterial or fungal skin infection, syphilis, anthrax, eczema, tuberculosis, infected insect bite or primary or metastatic skin tumor. In cases of facial lesions, differential diagnosis must be made with disseminated or discoid lupus erythematosus, lupus vulgaris, sarcoidosis or erysipelas [4,6].

In Tunisia, CL diagnosis is based on direct parasitology tests to detect leishmania parasites, DNA research of leishmaniasis via PCR (a new technique recently used in Tunisia) and on the histopathological examination of skin biopsy [7].

There are several therapeutic options such as cryotherapy, heat therapy with radiofrequency, topical treatment, oral treatments such as fluconazole, metronidazole [8]. In Tunisia, the pentavalent antimony (meflumine antimoniate) remains the treatment mainstay. Parenteral antimony administration is used with a 10 mg/kg per day dosage twice daily for 20 days [6]. Parenteral administration is recommended in cases of multiple or severe lesions or in lesions causing severe cosmetic sequelae on the face, for example. Erysipeloid form involving the face requires injectable treatment as in the case of our patient.

A treatment with topical herbal extract (Z-HE) was described by Zerehsaz and al [9] in this particular form of disease with a healing rate without recurrence of 92% after 12-month follow-up. Low cost, easy preparation and few drug related side effects characterize this topical treatment but further studies are necessary in order to confirm its efficiency.
Evolution is usually less than a year without major aesthetic sequelae [1,4].

Conclusion

CL of the face can have various clinical presentations. Any dermatologist and ENT specialist has to think of it when examining any unusual lesion of the face looking like erysipelas especially in subjects living or having stayed in endemic region of CL.

Conflict of interest statement

None.

References


