

## Cutaneous Leishmaniasis Mimicking Squamous Cell Carcinoma

Dear Editor,

Leishmaniasis is a parasitic infection caused by different species of the obligate intracellular protozoa *Leishmania*. This disease is transmitted through the bite of an infected female sandfly. The diagnosis of cutaneous leishmaniasis is not difficult in typical cases found in the endemic areas. However, the differential diagnosis of cutaneous leishmaniasis is lengthy, and the wide spectrum of clinical variants of the disease may pose a diagnostic challenge. The nodular lesions of cutaneous leishmaniasis are often confused with infectious processes such as furuncles, ecthyma, tuberculosis, syphilis and deep fungal infections, and sometimes even resemble malignant skin tumours.<sup>1,2</sup> We describe an unusual case of cutaneous leishmaniasis which clinically mimicked squamous cell carcinoma.

A 61-year-old woman presented with a year's history of nodular lesions inside her nose. Dermatological examination revealed an indurated plaque on the nose extending to and covering the upper lip. Two tumoural lesions, 1.5 cm in diameter, were noted inside each of the nostrils (Fig. 1). No regional lymph nodes were found. Symptoms such as fever, night sweats or weight loss were also not reported. Haematology and biochemistry tests were normal. A skin biopsy was obtained with the presumptive clinical diagnosis of squamous cell carcinoma. Histopathology showed a granulomatous infiltrate containing some leishmania parasites. Amastigotes were also demonstrated on smear. Polymerase chain reaction revealed genomic DNA fragments of leishmania in lesional skin specimen and confirmed the diagnosis. The patient was treated intramuscularly with meglumine antimonate (60 mg/kg per day for 15 days) twice with an interval of 4 weeks. All lesions healed within a month after the end of the therapy. No recurrent or new lesions have occurred ever since.

### Discussion

Leishmaniasis is a widespread parasitic disease with multifaceted clinical manifestations. The incidence of cutaneous leishmaniasis will exceed 1.5 million new cases annually, according to the World Health Organization. The incidence of cutaneous leishmaniasis may increase in non-endemic countries because of immigrant population, military personnel and tourists coming from endemic countries.<sup>1</sup> Cutaneous leishmaniasis, caused by *Leishmania tropica*, remains a serious health problem in 2 regions of the south (Adana) and south-east (Sanliurfa) of Anatolia, Turkey.<sup>3</sup>

Although cutaneous leishmaniasis prefers open body

areas such as the face, neck, hand and foot, it may also appear in other areas of the body including the scalp, eyelids, trunk and penis. In typical cases of cutaneous leishmaniasis, inflammatory lesions are initially papular and enlarge into nodules and/or ulcerations after 3 to 4 months. Eventually the lesions become crusted. Spontaneous healing usually occurs within 8 to 12 months with an atrophic scar. However, it should be treated in order to avoid lifelong disfiguring scars and secondary infection. In some types, the disease may persist for years if not treated.<sup>1,2</sup>

The clinical course of leishmaniasis depends on the invasiveness, tropism, pathogenicity, parasites, vector behaviour, extent of haematogenous and lymphatic spread and genetic susceptibility due to the host's immunity. The species of leishmania may have its own special manifestations and still none of the clinical presentations is unique to a particular species.<sup>2</sup> The morphologically unusual lesion in our case may be attributed to an altered host immunity or an atypical virulence of the leishmania species.

The diagnosis of cutaneous leishmaniasis is not difficult to make in typical cases that occur in endemic areas. Patients usually present with papules, nodules, or papulo-ulcerative lesions. Sometimes the diagnosis of cutaneous leishmaniasis is a challenge because it can mimic many other skin diseases.

There are several reports that basal cell carcinoma and squamous cell carcinoma may arise in leishmania scars. Its potential for subsequent malignant transformation should be considered. The co-existence of cutaneous leishmaniasis and basal cell carcinoma in the same lesion has also been

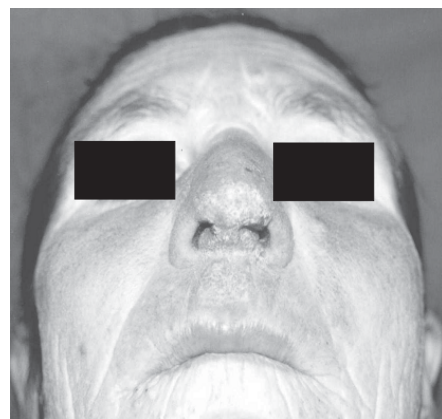


Fig 1. The appearance of the tumoral lesions inside the nostrils before treatment.

reported.<sup>4</sup> In our case, the lesion of the patient initially clinically mimicked squamous cell carcinoma. It should be kept in mind that cutaneous leishmaniasis can mimic many tumoural lesions including squamous cell carcinoma and basal cell carcinoma (Table 1).<sup>2,5,6</sup> Therefore, parasitologic confirmation of cutaneous leishmaniasis may be necessary for atypical tumoural lesions.

Uzun et al<sup>5</sup> reported a patient with an uncommon cutaneous leishmaniasis lesion that clinically resembled allergic contact dermatitis. Unusual clinical forms of cutaneous leishmaniasis have been reported including the palmoplantar form, chancriform lesion at the glans penis and penile shaft, zosteriform lesions at the trunk, erysipeloid form at the upper lip and adjacent cheek, annular form at the penile shaft and acute paronychia forms at the nail folds and fingers.

Akman et al<sup>6</sup> have observed cutaneous leishmaniasis cases that mimicked erysipelas, rosacea, hydroa vacciniforme, eczema, leg ulcer, sarcoidosis, discoid lupus erythematosus, leprosy, drug eruption, lupus vulgaris, basal cell carcinoma and squamous cell carcinoma. It has been suggested that cutaneous leishmaniasis may be a “great imitator” in the regions where cutaneous leishmaniasis is endemic, such as the Çukurova region (mainly the city of Adana).

Table 1. Clinical Differential Diagnosis of Cutaneous Leishmaniasis

Erysipelas	Rosacea
Kerion	Hydroa vacciniforme
Impetigo	Eczema
Furuncle	Sarcoidosis
Ecthyma	Leg ulcer
Wart	Discoid lupus erythematosus
Insect bite	Leprosy
Orf	Drug eruption
Molluscum contagiosum	Lupus vulgaris
Tuberculosis cutis	Jessner's lymphocytic infiltrate
Syphilitic gummata	Lymphocytoma cutis
Yaws	Keloid
Pyogenic granuloma	Psoriasis
Blastomycosis	Wegener's granulomatosis
Histoplasmosis	Keratoacanthoma
Paracoccidiomycosis	Lymphoma
Sporotrichosis	Leukaemia
Chromoblastomycosis	Cutaneous metastases
Swimming pool granuloma	Squamous cell carcinoma
Foreign body granuloma	Basal cell carcinoma
Granuloma facial	

In our patient, the lesion had a tumoural appearance. Skin biopsy was obtained with the presumptive clinical diagnosis of squamous cell carcinoma. Histopathology showed a granulomatous infiltrate containing some leishmania parasites. Amastigotes demonstrated on smear and genomic DNA fragments revealed by polymerase chain reaction confirmed the diagnosis of cutaneous leishmaniasis.

Patients with typical lesions usually do not present any diagnostic difficulty. However, as it can be localised on different sites of the body and mimicked several other skin diseases, cutaneous leishmaniasis should be considered in patients with non-healing and/or unusual dermatological lesions, especially in endemic regions and in patients coming from endemic countries.

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