

## An unusual manifestation of a neglected disease

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### Abstract

We report on a 30-year-old man that was seen by dermatologist for a routine check of melanocytic nevi. During the examination he pointed out a lesion on his upper back, stating that he did not know how long it had been there. Excision was performed and the histopathologic examination showed a dense granulomatous infiltrate in the dermis without ulceration. It turned out to be cutaneous leishmaniasis, the incidence of which is increasing in our immediate vicinity, and therefore it is important to constantly keep it in mind during everyday work at the clinic.

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### Introduction

Leishmaniasis is a vector-borne disease that is no longer limited to warm countries. It occurs increasingly not only in southern Europe, where it is endemic, but also in northern Europe. Primary skin lesions are caused by several species of parasites, among which stand out *Leishmania tropica* and *Leishmania infantum*, both endemic in Europe (1). The parasites are transmitted by sandflies of two different genera, *Phlebotomus* (Old World) and *Lutzomyia* (New World) (1). Each species has a favorite mammalian reservoir that varies with geography.

### Case report

A 30-year-old man was referred to a dermatologist for a routine check of melanocytic nevi. He stated that he was somewhat concerned about a lesion on his upper back and did not know how long it had been there. He had noticed it 3 months earlier, and it seemed to have been growing since then. There was no history of itching, pain, or bleeding of the lesion. However, he did not notice any other changes on his body. Over 2 years earlier he had had his moles dermatologically examined. No suspicious lesions were discovered.

His past medical history was uneventful and the patient was generally in good health. There was no family history of skin cancer.

The dermatological examination revealed a large number of melanocytic nevi, mostly of the dermal congenital type. In the lower vertebral line of the back of the neck there was a firm erythematous oval papule, 7 × 10 mm in size (Fig. 1).

Dermatoscopically, it was characterized by uneven distribution of blood vessels, partly globular structure with no visible signs of pigment or pigment network.

Based on the patient's history and clinical appearance, the differential diagnosis of the lesion included Spitz nevus, as well as a lymphocytic infiltrate, lymphoma, or pseudolymphoma. The remaining physical examination was normal.

Treatment was confined to surgical excision of the lesion. Histopathologic examination showed a dense granulomatous infiltrate in the dermis with histiocytes, multinucleated histiocytes,

and numerous intracellular amastigotes (Fig. 2, Fig. 3). Based on these findings, a diagnosis of cutaneous leishmaniasis was made.

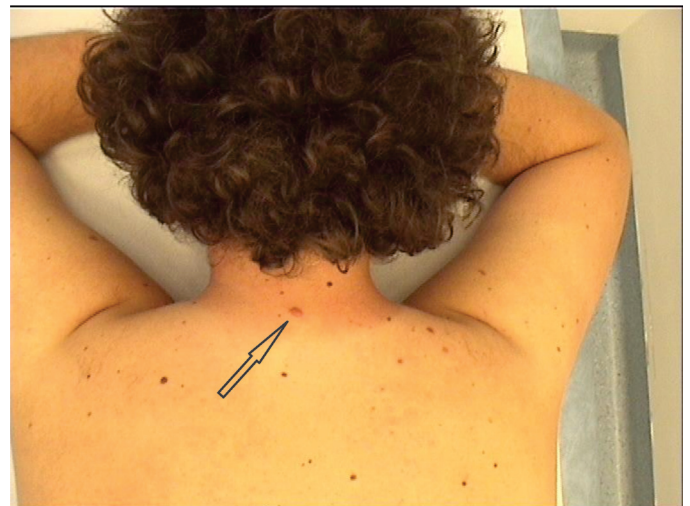


Figure 1 | Clinical presentation of the lesion: a solitary well-circumscribed reddish nodule in the lower vertebral line of the back of the neck.

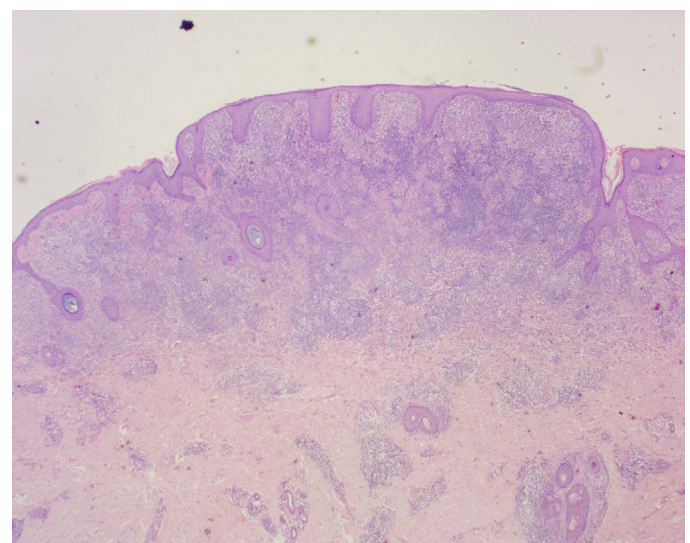
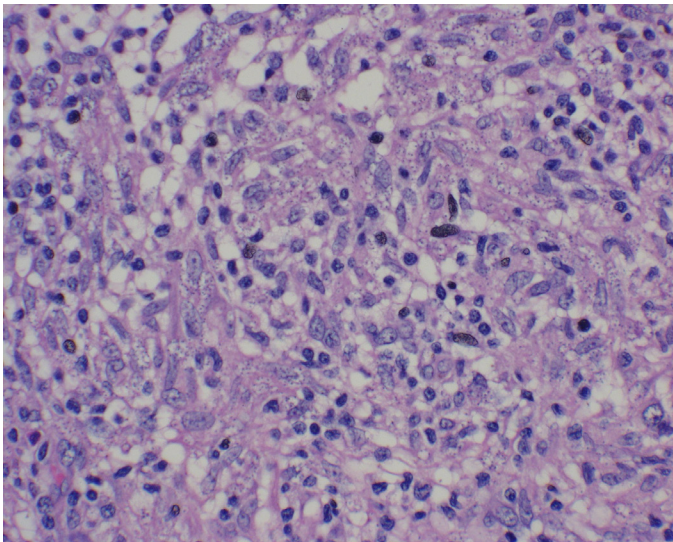


Figure 2 | A dense granulomatous infiltrate in the dermis without ulceration. HE stain, 40x magnification.

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**Figure 3** | Closer view: infiltrate of histiocytes and numerous intracellular small dots that represent amastigotes. HE stain, 100× magnification.

## Discussion

There are three different reasons why leishmaniasis is appearing or reappearing in Europe. First, the increase of global migration of people and domestic animals is leading to the introduction of *Leishmania* spp. into Europe (1). Second, cutaneous leishmaniasis is naturally spreading from the endemic area to other places in the vicinity where there are no reported cases of the disease (1). Finally, the higher number of immunosuppressed people is leading to a reappearance in the Mediterranean region (1). It is known that the occurrence of co-infections of HIV and leishmaniasis shows that this parasite is becoming a very important public health factor because for HIV patients leishmaniasis is one of the most frequent parasitic diseases, immediately after toxoplasmosis and cryptosporidiosis (1–3).

## References

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Moreover, due to the close connection between several vectors and reservoirs with the natural or countryside area, one can find a strong influence of urbanization and deforestation on worldwide leishmaniasis (1, 2).

There are three different forms of the disease—cutaneous, mucocutaneous, and visceral leishmaniasis—caused by more than 20 species of *Leishmania*. Primary skin lesions occur at the site of the sandfly bite, usually on the face or hands as a small erythematous papule that slowly grows over a period of several weeks (4). Eventually, the central area of the lesion becomes ulcerated and covered with a crust, whereas the border is usually indurated (4). Tiny satellite nodules may appear at the periphery or subcutaneous nodules may arise along the lymphatics in a sporotrichoid fashion (2, 4). Peripheral extension usually stops after 2 months, and the nodules become more ulcerated and then heal with a characteristic scar (4). The lesions are surprisingly asymptomatic (4).

There is some evidence that the time between the first examination of the primary skin lesions and diagnosis cutaneous leishmaniasis is much shorter in endemic countries in comparison with countries where the disease occurs sporadically (1, 2). The number of lesions depends on the frequency of exposure and extent of the density of infected sandflies (4).

Due to climate changes, global warming, and mass tourism, the incidence of this disease is increasing throughout Europe. There are no reliable data on the incidence in Slovenia because the disease is probably underreported.

In our everyday clinical practice, we should be aware of the atypical clinical manifestations of cutaneous leishmaniasis. In the case of our patient, no ulceration was present and the patient did not travel to exotic places. A short stay at the Croatian coast may have sufficed for infection. Leishmaniasis should be taken seriously because epidemiological data show that it is increasing in Europe, especially in the northern Mediterranean. Bearing this in mind, it can be recognized in its early stage.