# CASE REPORT

## CUTANEOUS LEISHMANIASIS IN NEPAL

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**Abstract.** We report an imported case of cutaneous leishmaniasis in a 30 year old adult male from Nepal caused by *Leishmania tropica*. This case from Dharan is the first such report of imported cutaneous leishmaniasis in Nepal.

### INTRODUCTION

Cutaneous leishmaniasis or Oriental sore is an infection of the skin caused by hemoprotozoan *Leishmania tropica* (Parija, 1996). The disease, also known as Aleppo button or Delhi boil, is characterized by the appearance of single or multiple lesions on the exposed part of the skin, at the site of bites of sandflies, especially on the face and extremities. Typically, these lesions which begin as a nodule at the site of inoculation, form the crust which may persist or fall away leaving an ulcer. Cutaneous leishmaniasis is found along the shores of the Mediterranean through Syria, Saudi Arabia, Iraq, Iran, to central Asia, the drier parts of central and western India including Rajasthan and also in many places of central Africa.

We document here an imported case of cutaneous leishmaniasis, which to the best of our knowledge is the first such case being reported from Nepal.

A 30 year old Nepali male presented with complaints of non-healing ulcers on the left fore arm and left calf since four months. The lesion started as a small nodule which increased in size in due course. The patient was treated with antibiotics and topical medicines but without any relief.

The patient was examined in the Dermatology outpatient department of this Institute. On examination, the patient had 3 well defined erythematous ulcerated plaques with thick crusting, one in the left forearm and other two on the left calf. The size of the ulcer was 3 × 2 cm on the left forearm (Fig 1) and those on the left calf were 3.5 × 2 cm and 2.5 × 1 cm (Fig 2). These ulcers were shallow and circular. They had a well defined erythematous elevated margins and a base formed by granulation tissue. There were three firm erythematous subcutaneous nodules along a linear line on the calf. The patient gave a history of working in Saudi Arabia for a period of three years prior returning to Nepal nearly six months back. All peripheral nerves and sensations were normal. General physical examinations were unrewarding and there was no organomegaly.

Laboratory investigations were marked by hemoglobin 17.5 g/dl, total leukocyte count 9,600/mm$^3$ cu/mm, differential leukocyte count: polymorphs 79%, lymphocytes 21%, eosinophils

Fig 1–Ulcer on the skin of left forearm.

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Fig 2–Two ulcers on the skin of the left calf.

o%, erythrocyte sedimentation rate 5 mm (Wintrobe). Mantoux test was non-reactive. Slit skin smear (SSS) test for acid fast bacilli was negative. The slit skin smear stained with Giemsa was positive for amastigotes of *Leishmania*. Histopathology of skin biopsy revealed chronic granulomatous lesion. Tissue culture on Sabouraud's agar showed no growth for fungi after 4 weeks. Serum for aldehyde test was negative. The case was diagnosed as cutaneous leishmaniasis. He was treated with sodium stibogluconate intramuscularly in a dose of 20 mg/kg/day for 21 days. He was followed up every week for a total period of 3 months. After receiving the treatment the ulcers were completely healed.

Our case was diagnosed as cutaneous leishmaniasis by the following criteria : (1) The presence of characteristic skin lesion, that is ulcer with a well defined erythematous elevated margin and a base formed by granulation tissue; (2) demonstration of amastigotes of *Leishmania* in the slit skin smear stained by Giemsa; (3) negative aldehyde test; (4) positive response to treatment with antimonials and (5) exclusion of other possible diseases such as lupus vulgaris and sporotrichosis.

Cutaneous leishmaniasis caused by *L. tropica* has been reported in certain parts of Rajasthan in the neighboring country, India (Parija, 1996). In India, cutaneous leishmaniasis is both anthroponotic (man-sandfly-man cycle) and zoonotic (dog-sandfly-man cycle). The ulcer, at the site of bite of a sandfly, is the typical skin lesion (Parija, 1996). Frequently, serous or seropurulent discharges are produced in the ulcer leading to the formation of scales or crusts. The ulcer over a period of 2 years heals spontaneously leaving behind a small, flat and depigmented scar.

Although visceral leishmaniasis caused by *Leishmania donovani* is a major health problem in Nepal (Koirala, 1995), cutaneous leishmaniasis is believed not to occur in this part of the country. Our patient who was working in Saudi Arabia for a period of 3 years probably would have contracted the infection during his period of stay there. This report emphasizes the need : (a) for awareness amongst clinicians in this country of the possibility of occurrence of such imported cases of cutaneous leishmaniasis due to the increased migration of job seekers to work in areas endemic for the disease, and (b) for the early detection and treatment of these cases, which is important to prevent transmission of the disease in the community. The possibilities of such cases being missed by clinicians is high due to the lack of adequately trained manpower for proper collection and transport of specimen for demonstration of amastigotes of *Leishmania* in the lesion, in the rural health centers. The parasitic diagnosis obviously is of utmost importance for specific diagnosis and consequent treatment of cases with pentavalent antimonials.

## REFERENCES

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