A form of muco-cutaneous leishmaniasis in the Old World

R. STC. BARNETSON*
Medical Research Council Leprosy Project, Addis Ababa, Ethiopia

D. S. RIDLEY
Department of Pathology, Hospital for Tropical Diseases, London, NW1

AND

H. W. WHEATE
All-Africa Leprosy Rehabilitation and Training Centre, Addis Ababa, Ethiopia

Summary
Four Ethiopian patients with leishmaniasis affecting the nose or the mouth are described. Leishmaniasis affecting these sites is relatively common in Ethiopia; this resembles South American leishmaniasis but probably results from direct extension from skin lesions rather than from metastatic spread of organisms.

Introduction
Muco-cutaneous leishmaniasis is relatively common in South America: it is often described by the term “Espundia”. In Africa there have been only five isolated case reports of patients with muco-cutaneous leishmaniasis (DESTOMBES et al., 1965; BRYCESON & NICOL, 1966; LEMMA et al., 1969; ABDALLA et al., 1975), four of these being from Ethiopia and the other from the Sudan. This is perhaps surprising as we have found a form of muco-cutaneous leishmaniasis to be relatively common in Ethiopia. We describe here four patients who had marked involvement of the muco-cutaneous junction of either the nose or the mouth.

Patients
Examination: there was peripheral infiltration of the skin and induration with central scarring and resultant depigmentation (Fig. 1). The process involved both the skin of the nose and upper lip and the mucous membranes of both nostrils with destruction of the left ala nasae.
Skin smears (Giemsa stain): negative.
Skin biopsy (haematoxylin and eosin): pseudo-epitheliomatous hyperplasia and a small area of necrosis in the dermis. Many lymphocytes present: no epithelioid cell granuloma seen. Single cluster of amastigotes seen.
Treatment: no pentamidine available. No response to meglumine antimoniate (Glucantime).

2. A.B. Male. Age 40. Presented with six-month history of ulceration of the right nostril, and swelling and ulceration of pinna of the left ear.
Examination: ulceration and destruction of right ala nasae (Fig. 2). Swelling and ulceration of pinna of the left ear.
Skin smears: many amastigotes seen (both nose and ear).

Fig. 1. Muco-cutaneous leishmaniasis involving the skin of nose and upper lip, and the mucous membranes of both nostrils with destruction of the left ala nasae.

Fig. 2. Swelling and ulceration of pinna of the left ear.

* Present address: Department of Dermatology, Royal Infirmary, Edinburgh.
Fig. 2. Muco-cutaneous leishmaniasis resulting in ulceration and destruction of the right ala nasae.

*Skin biopsy:* not done.
*Treatment:* no pentamidine available. No response to Glucantime. Good result with plastic surgery.

3. A.U. Male. Age 15. Presented with nodular and plaque-like lesions on the right cheek of four months' duration. Two months later the process spread to involve the lower lip with widespread ulceration.

*Examination:* Nodular and plaque-like lesions of the right cheek. Nodulation and ulceration of lower lip (Fig. 3).

*Skin smears:* many amastigotes seen.
*Skin biopsy:* fairly dense dermal infiltrate with a small histocytic granuloma and in one section a small cluster of epithelioid cells. Scanty amastigotes seen.
*Treatment:* he was treated with pentamidine 150 mg intramuscularly twice weekly for eight weeks with very good response. The ulceration of his lip healed, the swelling of the lip disappeared, and the nodules disappeared.

4. T.M. Male. Age 49. Presented with swelling of the lower lip and small nodules on the upper lip and nose of two years' duration.

*Examination:* ulceration and swelling of lower lip (Fig. 4). Small bluish nodules on upper lip and nose.
*Skin smears:* negative.

Fig. 3. Muco-cutaneous leishmaniasis with nodular and plaque-like lesions of the right cheek, and nodulation and ulceration of lower lip.

*Skin biopsy:* dense dermal infiltrate, consisting predominantly of plasma cells. No epithelioid cell granuloma. Scattered macrophages. Few amastigotes seen.
*Treatment:* he was treated with pentamidine 150 mg intramuscularly with very good response. The ulceration of his lip healed, the swelling of the lip disappeared, and the nodules disappeared.

**Discussion**

This paper describes four patients who presented to the Addis Ababa Leprosy Hospital with cutaneous leishmaniasis involving the muco-cutaneous junction of either the nose or the mouth. It is probable that the involvement of the mucous membranes in these patients resulted from direct extension from skin lesions affecting the nose or lips: this is in contrast to Espundia where the involvement of mucous membranes is probably due to blood-borne or lymphatic spread of the organisms (Kerdel Vegas, 1975). But although the manner by which *L. tropica* reaches the mucosa appears to differ from that of *L. brasilensis*, the outcome in some ways is similar. In Ethiopia (Bryceson, 1969) as in South America (Marsden & Nonata, 1975) the nose is the commonest site and almost all reports concerning the disease in Ethiopia recognize that invasion of mucous membranes occurs on occasions, though none of them except Lemma *et al.* (1969) emphasize this point.
We have found that there was considerable variation as to clinical presentation in patients with muco-cutaneous leishmaniasis in Ethiopia: in some the progression of the disease was rather indolent, whereas in others (as in those described here) the process was very invasive and destructive, though not so extensive as in some cases due to *L. braziliensis*. This was also reflected by the histology of the skin lesions, which suggested varying degrees of immunity of the host to the parasite.

It is probable that in African muco-cutaneous leishmaniasis, the muco-cutaneous junction becomes involved accidentally, partly perhaps because the neighbourhood of the nose is so often the site of the primary lesion. It is thus not a special syndrome such as Espundia in South America. However, from a clinical point of view, the presentation is striking and it should be differentiated from other diseases, such as tuberculosis, and skin tumours, such as squamous cell carcinoma and malignant melanoma, which may also involve the muco-cutaneous junction.

References


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