Ulceration of the Palms and Soles

An Unusual Feature of Cutaneous T-cell Lymphoma

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Two patients, one with Sézary syndrome and one with mycosis fungoides are described, in whom lesions on the palms and soles were associated with extensive ulceration and gave rise to diagnostic difficulty. Extensive ulceration of the palms and soles is uncommon; its presence should alert clinicians to the possibility of cutaneous T-cell lymphoma.

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Cutaneous T-cell lymphomas can display a variety of clinical appearances (1). In the early stages, both mycosis fungoides and Sézary syndrome may have non-specific clinical and histological features. In the advanced stages, more characteristic appearances are usually seen, but atypical presentations with hyperkeratotic, papillomatous, hypopigmented, bullous, or acneiform lesions have been described (1). We present 2 patients, one with mycosis fungoides and the other with Sézary syndrome, in whom atypical lesions with extensive ulceration on the palms and soles gave rise to diagnostic difficulty.

CASE REPORTS

Case 1

A 63-year-old Caucasian female presented in 1967 with a widespread scaly eruption which had the clinical appearance of guttate psoriasis and responded to coal tar paste and UVB therapy. The patient was re-referred in 1981 with a further widespread eruption which had the features of a

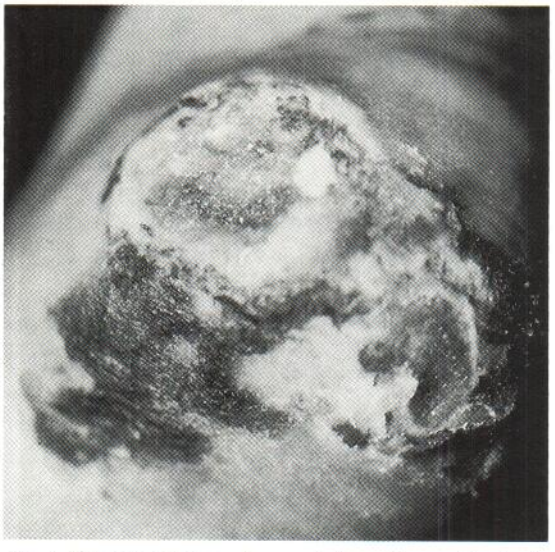

Fig. 1. Ulcerated lesion of mycosis fungoides on the heel.

pre-reticulotic type of parapsoriasis. Skin biopsy specimens confirmed this. In the following years the patient developed lesions morphologically similar to lymphomatoid papulosis and pityriasis lichenoides chronica. Further biopsies from these lesions revealed a dense lymphoid infiltrate in the upper dermis with cerebriform nuclei and Pautrier's microabcesses and indicated a diagnosis of mycosis fungoides. Good improvement was achieved with psoralen photochemotherapy. Several more indurated plaques responded rapidly to conventional superficial X-ray therapy at a dose of 1–2 Gy.

After a full clinical remission lasting several years, a solitary ulcer developed in 1986 on the left heel and rapidly increased in size (Fig. 1). There was a slightly raised macerated margin with granulation tissue at the base. No other lesions were present and general examination was normal. The appearance of the ulcer was non-specific and the diagnosis uncertain. A biopsy from the margin of this lesion showed characteristic features of mycosis fungoides. Treatment again with conventional superficial X-ray therapy at a dose of 4 Gy resulted in complete healing over several weeks.

In may 1988, the patient developed a further lesion on the left foot, which proceeded to ulceration involving the whole of the third, fourth and fifth toes, extending onto the underlying sole. A biopsy again confirmed mycosis fungoides. Treatment with subcutaneous alpha interferon 3 Megaunits daily was commenced. The therapy was continued for 3 months during which time further more typical lesions appeared over the trunk, limbs, interdigital areas, scalp and face. In view of the deterioration, interferon was

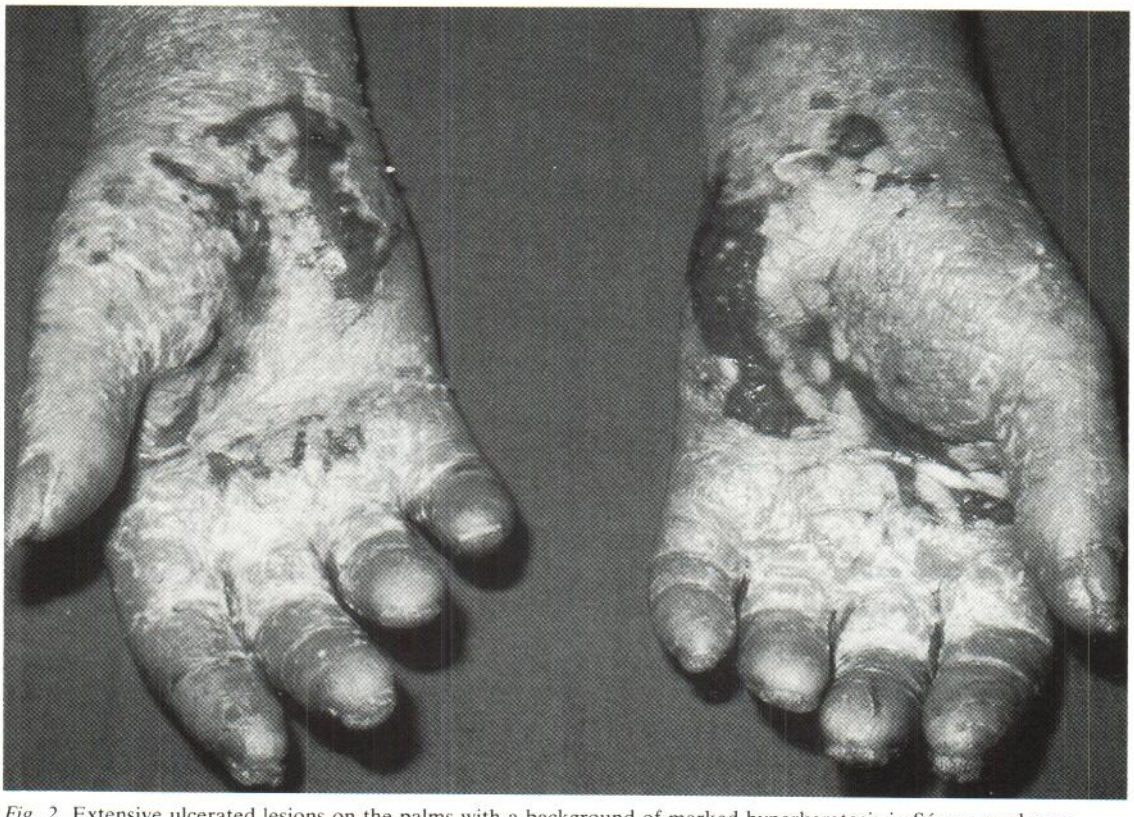

Fig. 2. Extensive ulcerated lesions on the palms with a background of marked hyperkeratosis in Sézary syndrome.

discontinued and treatment commenced with prednisolone 30 mg daily, chlorambucil 6 mg daily and etretinate 25 mg daily, with some clinical improvement. Arrangements were also made for generalized electron beam therapy which produced some further improvement. However, she subsequently deteriorated despite addition of pulse CHOP chemotherapy (chlorambucil, cyclophosphamide, vincristine and prednisolone) and died.

Case 2

A 58-year-old man presented in November 1985 with a 5-year history of an intermittent erythematous scaly rash principally affecting the palms, soles and scalp. The patient had a long history of depression necessitating several hospital admissions. There was no other relevant past medical history. General examination was entirely normal. A diagnosis of psoriasis was made on clinical grounds and a satisfactory response was achieved with topical steroid preparations. In July 1986 the rash became more widespread and was associated with marked hyperkeratosis of the palms and soles. Limited improvement followed treatment with a combination of etretinate and PUVA, and subsequently with hydroxyurea.

In April 1988, the patient was admitted to hospital following worsening of his condition over a period of several weeks. On examination there was widespread exfoliative dermatitis with marked hyperkeratosis of the palms and soles. In addition there was a marked nail dystrophy and large areas of ulceration on the palms (Fig. 2). Cervical and axillary lymphadenopathy were noted, but the examination was otherwise normal. A clinical diagnosis of psoriasis was made but the ulcers on the palms were incompatible with this and a diagnosis of ulcerated lichen planus was considered.

A skin biopsy specimen taken from the edge of one of the palmar ulcers revealed a lymphocytic dermal infiltrate consisting of normal small lymphocytes and large transformed cells, some with nuclear indentations. In addition the epidermis was sparsely infiltrated with small lymphocytes, some forming small clusters in the upper epidermis. These findings indicated a diagnosis of cutaneous T-cell lymphoma. Sézary cells were identified on routine blood counts accounting for 64% of circulating leukocytes.

The palms were treated with electron beam therapy without significant improvement. The patient was subsequently treated with subcutaneous alpha-interferon in a dose of 3 Megaunits three times a week, increasing to 3 Megaunits daily after 4 weeks. Hydroxyurea was subsequently added in a dose of 1 g daily. The palms and soles were treated with potent fluorinated topical steroids under occlusion. On this regimen there was a general improvement in the skin and a reduction in circulating Sézary cells. However, although there was partial healing, the palmar ulcers have persisted and new ulcerated areas have appeared on the soles.

DISCUSSION

Chronic ulceration of the palms or soles is uncommon in the absence of significant sensory neuropathy or ischaemia. It may occur in lesions of cutaneous vasculitis and can be seen in localized areas at the site of lesions such as calcinosis cutis, gouty tophi or malignant tumours such as squamous cell carcinoma and malignant melanoma. Ulceration of mycetoma on the sole is not uncommon in the tropics and can be seen in the late stages of Treponemal infections. Other causes of chronic palmoplantar ulceration are rare. Persistent erosions of the palms and soles may occur in epidermolysis bullosa. Ulceration of the fingers has been reported in one patient with sarcoidosis (2). Extensive chronic ulceration of the feet has been described in a number of cases as an unusual feature of lichen planus (3).

We have described here 2 patients with cutaneous T-cell lymphoma who developed extensive chronic ulceration, one of the palms and the other of the soles. In the first case the patient developed discrete areas of ulceration on the sole of the left foot some years after a prolonged remission of mycosis fungoides. In the second case the patient developed extensive areas of ulceration of both palms against a background of palmar hyperkeratosis during an evolving Sézary syndrome. Ulceration is known to be a complication of tumourous mycosis fungoides lesions. However, we are not aware of any previous reports of palmar or plantar ulceration in these conditions. Hyperkeratosis of the palms and soles is a common feature of Sézary syndrome, but ulceration has not previously been reported.

In conclusion, extensive chronic ulceration of the palms or soles can occur in conjunction with mycosis fungoides and Sézary syndrome. These disorders should be considered in the differential diagnosis of chronic palmar or plantar ulceration.

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