GM-CSF, stimulates tissue macrophages, causing an increased abundance in the skin. It is also speculated that high levels of G-CSF produce many inflammatory cytokines in the skin, which leads to a greater monocular cell infiltration in this tissue (4, 5).

In the literature, we found 4 cases with predominant mononuclear cell infiltration in cutaneous reactions associated with the use of G-CSF (5, 6), just as in our patient. There were 2 cases of cancer involving internal organs (5, 6), a case of acute leukemia (5), and a case of Hodgkin's disease (5). Most of the cutaneous reactions were erythematous plaques. The appearance of the cutaneous reactions started 13–42 days after the use of G-CSF. Histologically, cutaneous reactions showed dominant perivascular lymphohistiocytic infiltration with few neutrophils. The majority of infiltrated cells were CD68-positive in all biopsied cases (5, 6). Our report adds to the body of evidence showing that administration of G-CSF induces a cutaneous reaction that histopathologically shows a CD68-positive mononuclear cell infiltration into the skin.

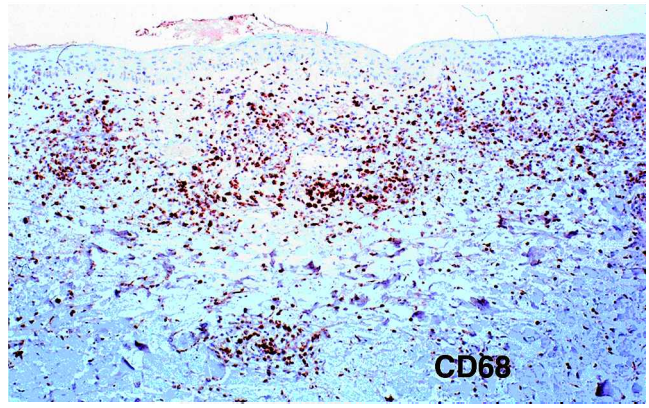

Fig. 2. Positive immunostaining with CD68 in the dermis showing perivascular and perifollicular mononuclear cell infiltrations in the dermis (×40).

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Constitutional Pompholyx Eczema Complicated by Secondary Lymphoedema

Joanna E. Gach and Clodagh M. King
Dermatology Department, Walsgrave Hospitals NHS Trust, Clifford Bridge Road, Walsgrave, Coventry, CV2 2DX, UK.
E-mail: asia@jgach.freeserve.co.uk
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Sir,

The aetiology of pompholyx eczema remains unknown, but an atopic diathesis, local hyperhidrosis and contact sensitivity to metals may contribute to the development of this relapsing vesicobullous disease of the palms and soles (1). Exacerbation by bacterial infection is common and the resulting inflammation potentiates the development of lymphatic damage. We describe here a patient who developed lymphoedema of all four limbs, secondary to constitutional pompholyx eczema, which proved resistant to treatment.

CASE REPORT

A 47-year-old woman, formerly an assistant chef, presented with a 3-year history of recurrent attacks of severe pompholyx eczema affecting her palms and soles. Pitting oedema of her hands coincided with the second attack of eczema (Fig. 1), about 2 months after the initial presentation, and was followed by oedema of her feet. The swelling extended to involve the forearms and gaiter area, being marked during an acute flare of eczema and diminishing but not clearing when the rash settled. On occasion she reported swelling of the lower abdomen, axillae and breasts during exacerbations. Observation of acute flares demonstrated bacterial superinfection, as evidenced by tenderness, erythema, weeping and crusting of the palms and soles associated with a neutrophil leukocytosis. Patch testing with the ICDRG standard battery, the steroid and

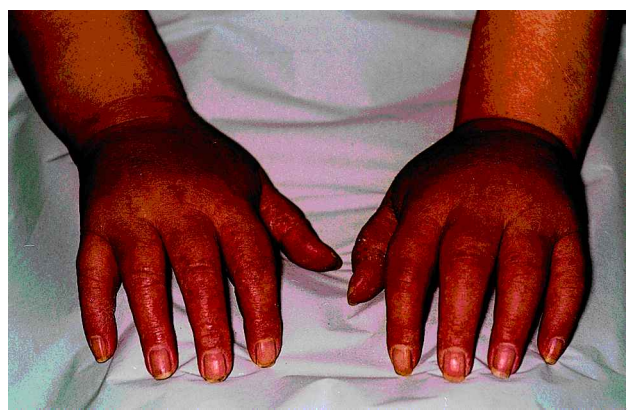

Fig. 1. Lymphoedema of the hands.

facial batteries was negative apart from an irrelevant positive reaction to Sesquiterpene lactones. Her IgE was raised at 710 kU/L (normal range less than 100), confirming an atopic status. She had a strong family history of atopy.

Control of the pompholyx eczema was initially difficult and necessitated occasional short courses of systemic prednisolone therapy. Azathioprine was not tolerated because of nausea. Finally, a combination of topical betamethasone valerate/fucidic acid, potassium permanganate 1:10 000 soaks and long-term treatment with prophylactic Clarythromycin 250 mg twice daily significantly improved, but did not completely suppress the eczema. Massage of the affected limbs, together with compression therapy using a short stretch bandage (Comprilan®) which generated up to 40 mmHg of pressure, offered significant although temporary benefit. Graduated compression gloves class II (Elvarex®) were used subsequently to maintain the improvement achieved with massage and bandaging.

DISCUSSION

Secondary lymphoedema has previously been reported in association with chronic irritant dermatitis (2) and allergic contact dermatitis (3–4) of the extremities. This case is unusual in that the lymphoedema occurred in both the upper and lower limbs as a complication of constitutional pompholyx eczema in an atopic subject with no relevant contact sensitivity. The swelling of the hands and feet occurred relatively soon after development of the eczema, in contrast to the above-mentioned cases where a period of 5 to 10 years elapsed before the clinical manifestation of limb swelling. This, together with reported short-lived swelling of distant sites including the lower abdomen, axillae and breasts might suggest an underlying generalized premorbid lymphatic insufficiency such as premature ageing or atrophy of the lymph vessels (5). Alternatively, extension of lymphoedema onto the corresponding quadrant of the trunk could be explained by the fact that its drainage routes are shared with the involved limb.

Primary lymphoedema, in contrast to the secondary disease, has an onset soon after birth or during puberty and frequently there is a positive family history of the condition. Primary lymphoedema is persistent, irreversible and may affect midline sites such as the face or genitalia. Although lymphangiography was not performed in our patient to exclude an intrinsic abnormality of the lymph vessels, the late onset, a fluctuating course and the involvement of all 4 sites affected by pompholyx eczema are in favour of secondary lymphoedema.

The prompt development and progression of lymphoedema in our patient with constitutional pompholyx eczema could be explained by an exquisite sensitivity of otherwise normal lymph vessels to the eczematous inflammation or inflammatory damage consequent upon recurrent bacterial infections. Recurrent exacerbations of pompholyx eczema are often driven by staphylococcal or streptococcal infections. The infective process can lead to progressive damage of lymphatics and the resulting imbalance between increased capillary filtration and compromised lymphatic drainage eventually cause irreversible lymphoedema (5). Good control of the eczema and suppression of recurrent infections are imperative and will hopefully halt or slow down the process of lymphatic destruction. Treatment with long-term antibiotics (e.g. penicillin V) and an immunosuppressant agent such as azathioprine (Imuran®) may be necessary to achieve this.

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