Current Practice

DISEASES OF THE SKIN

Idiopathic and Disseminated Eczema

BRIAN F. RUSSELL,* M.D., F.R.C.P.

Contact dermatitis and atopic eczema have been discussed already in this series. This article is concerned with all eczemas of undetermined cause, where eczema is defined as an eruptive papular, papulovesicular, or scaly dermatosis. A convenient, though artificial, classification of this group is as follows: vesicular eczema of the hands and feet; scaly eczema of the hands and feet; extensive papulovesicular eczema; discoid eczema; and erythroderma. Frictional dermatoses such as lichen simplex and disseminated neurodermatitis, in which the predominant physical sign is lichenification, are not forms of idiopathic eczema, but they will be discussed here for convenience.

General Remarks

In the management of patients with eczema it is sound practice not to accept a diagnosis of idiopathic eczema until a determined attempt has been made to discover some material and perhaps specific cause. This can be done only by taking a careful and comprehensive history and then considering this in relation to the extent and pattern of the dermatosis. In the history attention has to be paid to the patient's occupation, hobbies, hygienic habits, and emotional status. Inquiry must also be made into drugs taken internally, as well as to possible sensitizing contacts in the form of medicaments, antiseptics, medicated soaps, rubber, metals, plants, cosmetics, and occupational hazards. Following the clinical examination it may be necessary to carry out appropriate patch tests and to make direct microscopical examination of scrapings from the skin or of blister-tops for fungal elements. Only when all these investigations prove negative should an eczema be regarded as idiopathic, and this term means no more than an eczema for which no cause can be found with the knowledge and methods available to us at present.

To search carefully and persistently for a material cause is no less important since the introduction of powerful topical applications which can effectively suppress inflammatory dermatoses. Knowing that symptomatic relief can often be obtained with these preparations, it is tempting to abandon the search for a material cause after too little effort. If an existing specific cause is not found and removed or avoided relapse and possible chronicity are likely on stopping the suppressive treatment with a topical corticosteroid. Indeed, the relapsing or chronic nature of idiopathic eczemas may be due to our inability to discover some causal agent.

Vesicular Eczema of the Hands and Feet

A routine search should be made for a contact cause or for a fungal infection. If a complete examination of the skin is not made, at least all four extremities should be inspected,

because these areas often react *pari passu*. The finger-nails and toe-nails should also be inspected.

In patients with idiopathic vesicular eczema of the hands the skin of the feet may remain normal. "Frog-spawn" or "sago-grain" vesicles are present in a patchy or diffuse pattern on the palms and on the volar and lateral aspects of the digits (cheiropompholyx). The backs of the hands and digits are spared. A similar condition may affect the feet alone (podopompholyx), or all four limbs may be affected. Recurrent attacks are common, with partial or complete remissions. Attacks are more common in warm weather or when the patient is anxious.

By the time the patient seeks treatment the condition is usually beyond the stage at which a corticosteroid application can be helpful, but he may be encouraged to use one at the first sign of any recurrence.

Fully developed attacks should be treated with protective and antibacterial applications. Bathing the affected parts for ten minutes twice a day in a 1 in 8,000 solution of potassium permanganate lessens the risk of secondary infection or helps to control it if it is present. (It is safest to prescribe this preparation as a 4% solution, with instructions to dilute one teaspoonful (3.5 ml.) of this with a quart (1,120 ml.) of water.) Large blisters should be punctured and collapsed, with strict antiseptic precautions, as this makes the patient more comfortable and it is easier to apply dressings. The use of chlortetracycline ointment 0.25% on eroded, punctured, or fissured areas prevents or cleans most secondary infections. When there is an established infection bacteriological guidance on sensitivity to antibiotics is desirable. Unbroken uninfected lesions can be dressed with zinc oxide and salicylic acid paste (Lassar's paste) or a somewhat softer preparation such as liquid paraffin 25% and Lassar's paste to 100% may be used. Light gauze dressings are ideal (not lint), and tubular gauze dressings or gauze gloves are available and are practical and effective.

If lymphangitis or lymphadenitis develops the patient should be put at rest with the affected part elevated and a course of oral or parenteral penicillin should be prescribed.

It is often impossible to prevent recurrences of pompholyx. Attention should be paid to footwear to ensure that maceration of the skin of the feet from sweat retention does not occur. Rubber soles are best avoided and plimsolls should be forbidden. Sandals may be given a trial. The socks should not be impervious or tight on the feet. A state of anxiety seems to have as bad an effect as heat and humidity on some patients. Such individuals may be helped by amylobarbitone 30-50 mg. b.d. or by trimeprazine 10 mg. t.d.s. Discussion and rapport may help to lessen the patient's anxieties.

Discoid eczema is sometimes limited to the hands but it differs from pompholyx by affecting mostly the dorsal surfaces, sparing the palmar aspects, and presenting with discrete well-defined nummular papulovesicular lesions adjoining normal areas of skin. (See below.)

* Physician, the Skin Department, the London Hospital.

Dermatitis repens is a crusted and scaly condition which usually starts from a nail fold and slowly spreads up a digit with a clearly defined margin. There may be other patches not originating near nail folds. It appears to be an infective eczema and often responds satisfactorily to chlortetracycline ointment 0.25 %.

Eczematized scabies may mimic vesicular eczema of the hands. Itchy lesions at the finger webs are particularly suspect. There may be a history of other cases among contacts. Examination of the whole skin surface for burrows (best seen by tangential lighting) and papules in their characteristic distribution should make the diagnosis clear in most cases, and the recovery of an acarus or ova from a burrow establishes the diagnosis beyond doubt.

Pustular psoriasis may mimic vesicular eczema of the palms and soles, but the lesions consist of creamy (abacterial) pustules and brown macules in a scaly red background with a well-defined border. The thenar and hypothenar eminences, the soles, and the heels are the sites of election. Sometimes there is also psoriasis of the scalp or elsewhere. The condition is difficult to relieve (whence "acrodermatitis continua") but may improve with the application of one of the more powerful topical corticosteroids in ointment form beneath polyethylene cover by night, and emulsifying ointment or soft paraffin ointment by day. The concept of a focus of infection as a causal factor has been abandoned by most clinicians. Grenz ray therapy is worth a trial in resistant cases. When the discomfort in the feet is so bad as to cause difficulty with walking it may be justifiable to suppress the lesions with a systemic corticosteroid such as triamcinolone, starting at 16 mg. daily and reducing the dose as soon as possible to the smallest effective maintenance dose. All the possible ill effects of this treatment should, however, be borne in mind, particularly as it may have to be continued indefinitely.

Scaly Eczema of the Hands and Feet

Again it is important to examine the rest of the patient's skin, with particular attention to hands, feet, and nails. Contact eczema should be excluded by patch testing.

If there is fine white scaling in the small creases of one or both palms or soles, with itching and diminished sweating, the likely diagnosis is a *Trichophyton rubrum* infection. Toe-nails or finger-nails may be thickened, friable, and yellow. Microscopic examination of scrapings may then reveal fungal elements. (Scrapings can be made from a nail plate, using the side of a glass microscope slide. These are of sufficient thinness for immediate examination after preliminary treatment with potash.) In addition to this confirmation of the diagnosis by direct microscopy it is advisable to arrange with a mycology unit for culture of the organism.

In idiopathic scaly eczema of the hands and feet the scaling is relatively more coarse and may be accompanied by fissuring. The condition may be idiopathic from the start or may be the end result of past recurrent or chronic exogenous dermatitis which has persisted after the primary cause has been eliminated. Sometimes persistent scratching produces a dyskeratotic lichenified dermatitis, which represents lichen simplex as it appears on the palms. Scaly eczema limited to the tips of the digits and the skin over the distal phalanges may be caused by a number of agents, and direct questions should be asked to exclude contact with glues, local anaesthetics, formalin, caustic soda, and tulip, onion, and garlic bulbs.

Scaly eczema of the extremities may be suppressed and relieved by the topical application of corticosteroids at bedtime with occlusion beneath polyethylene gloves or bags. It is often unnecessary to apply the more powerful corticosteroids in full concentration; fluocinolone acetonide or betamethasone valerate creams diluted one part with nine parts of oily cream

may prove effective, or in more resistant cases a dilution of one to four may be appropriate. Medicated or perfumed soaps and antiseptics are best avoided; "baby soap," simple soap, or emulsifying ointment as a soap substitute are satisfactory. Alternatively in milder cases oily calamine lotion, calamine cream, oily cream, or weak tar paste can be applied, but these preparations are aesthetically less acceptable than the corticosteroid creams, and patients with chronic eczema may become sensitized to preparations containing lanolin. When the skin is fissured ointment of wool alcohols, 2 % salicylic acid ointment, or zinc oxide and salicylic acid paste make suitable applications.

Itching may be severe, and promethazine, 25 mg. two hours before bedtime, with amylobarbitone 35–50 mg. b.d. or trimeprazine 10 mg. t.d.s. give relief. In very resistant cases Grenz rays at 10 kV weekly for three or four applications are preferable to x rays at 60 kV or more.

Psoriasis of the palms and soles may mimic scaly eczema, but the dyskeratotic patches are well demarcated and other psoriatic lesions may be found elsewhere on the skin or on the nails.

Extensive Papular or Papulovesicular Eczema

Inquiry should be made of patients regarding possible sensitizing contacts and any drug intake, and an examination of the whole surface of the skin should be made to exclude a primary focus of contact eczema or fungal infection. Widespread idiopathic eczema or an eczematide from a remote or internal focus is likely to be symmetrical, whereas contact eczemas from nickel, rubber, dyes, or perfumed dusting powders usually have their different, but characteristic, patterns.

It is advisable to provide mental and physical rest as far as possible for patients with widespread eczema, and for this purpose admission to hospital is indicated. Amylobarbitone or trimeprazine may help to relieve both itching and anxiety, while promethazine at night helps to provide adequate sleep. The eruption may be dressed with calamine lotion or with a diluted corticosteroid cream—for example, fluocinolone acetonide or betamethasone valerate diluted one part with nine parts of oily cream. It is inadvisable to use occlusion when applying fluorinated corticosteroid preparations to extensive eczemas because enough absorption may occur to cause undesirable side-effects.

Sometimes in extensive eczemas there is a need to carry out patch testing. This should be deferred until the condition has cleared and remained clear for at least two weeks. Patch testing on inflamed or partly relieved areas of skin may give severe, diagnostically useless non-specific reactions and the existing dermatosis may be severely aggravated.

Baths are best avoided in the acute phase but later warm baths may be permitted. Patients should be advised to use emulsifying ointment or a simple soap and to avoid friction when drying the skin.

A course of systemic corticosteroid therapy is justifiable only in the worst cases. The initial dosage should be 20–25 mg. of prednisone daily; withdrawal should be complete by the end of three weeks if possible.

Discoid Eczema

This well-defined clinical condition mostly affects middle-aged or elderly males. Lesions occur on the extensor aspects of the limbs and in the worst cases on the trunk, but sometimes only the dorsa of the hands are affected. The disorder is idiopathic in the sense that no sure cause has been found for it, but it tends to occur in individuals with constitutional xeroderma, or in those who have been exposed excessively to the effects of soap and water. Thus young hairdressers may develop a condition closely resembling discoid eczema after

prolonged and repeated occupational exposure to soap and water when shampooing 20 or more customers' scalps in a day. In the elderly the excessive application of soap to the ageing, dry, atrophic skin may disturb the hydration and fat content of the surface of the skin and so initiate discoid eczema. It is more often seen in the executive classes than in manual workers. Some clinicians think that emotional factors are important. Patients with atopic eczema or psoriasis also often have xeroderma, and the skin condition may sometimes change temporarily to a discoid eczematous type of reaction. An infective cause has not been established, but the first choice of local application for this condition is a combination of a corticosteroid with a quinoline derivative (Vioform-Locorten, Betnovate-C, or Synalar-C). These preparations are all aesthetically more acceptable than a clioquinol tar paste mixture (one part of clioquinol cream in three parts of weak tar paste), although the latter sometimes proves more effective than the corticosteroid-quinoline mixtures. Warm baths may be taken using emulsifying ointment in place of soap. Contact with woollen garments should be avoided and tubular gauze dressings are practical and comfortable. The patient should not sit near open, gas, or electric fires. A sedative at night is often indicated.

Erythroderma

This term implies an extensive or universal erythema which persists for weeks, months, or years, with a varying degree of scaling and pigmentation. The term exfoliative dermatitis may be applied to the more scaly forms. There may be considerable loss of hair and ectropion and also nail dystrophy. Sometimes there is gynaecomastia.

Before deciding that a patient has an idiopathic form of erythroderma the doctor should exclude the possibility that the erythroderma was due to outwardly applied substances or drugs, or was associated with malabsorption. Conditions that should also be considered include reticulotic erythroderma, pemphigus foliaceus, and universal psoriasis.

Idiopathic erythroderma is a chronic condition with occasional spontaneous remissions, which sometimes last for years. The skin is dark brown and there is usually rubbery enlargement of the lymph nodes, particularly at the axillae and the groins, giving the characteristic picture of lymphadenopathic erythroderma, sometimes also called lipomelanotic reticulosis, because of the histological appearance of the lymph nodes. This picture is in fact a benign reaction, and the expression "reticulosis" is inappropriate for this type of erythroderma. Nevertheless, the true state of affairs may not be determinable for some months. This is because a true reticulosis may give a lipomelanotic histology in the lymph nodes at its earlier stages. Periodic skin biopsies at intervals of some months are advisable in these circumstances, and the recognition of bizarre reticulum cells with increased mitotic activity may enable a diagnosis of

cutaneous reticulosis to be made before the unequivocal clinical manifestations such as poikiloderma or infiltrates and tumours of mycosis fungoides appear.

Patients with erythroderma are best admitted to hospital for rest, nursing care, and full investigation. Inpatient supervision also provides the best conditions in which to start treatment with a course of systemic corticosteroids if this is thought necessary. At the same time topical treatment can be given with a diluted corticosteroid cream, and in some cases it is possible partly or completely to withhold systemic treatment. In erythroderma excessive heat loss may occur from the extensively reddened skin, and care must be taken when examining the patient not to expose any more of the skin than is absolutely necessary at any one time. The patient should receive a high protein diet.

In remissions it may be possible to abandon local treatment as well as systemic steroid therapy; if the skin remains rough or dry oily calamine lotion, oily cream, or ointment of wool alcohols may be applied.

Lichen Simplex

Lichen simplex is not strictly speaking an eczema, but is a frictional dermatosis in which emotional tension is an important exciting cause. Often there is no evidence of any externally contacted eczematous agent.

Contact eczema or dermatitis may also become perpetuated by friction, producing the condition known as lichenified dermatitis, but here again an emotional factor such as an unsettled industrial claim may explain the persistence of the dermatosis in spite of the removal of the patient from the exciting cause. Hypostatic eczema may also become secondarily lichenified.

Lichenified dermatitis affects areas of past dermatitis, whereas lichen simplex is usually seen at the nucha, at the extensor aspects of the forearms just distal to the elbows, in the anogenital region, or at the anterolateral aspects of the calves.

Superficial psychotherapy may help by providing insight about current problems and so enabling the patient to adjust better to the situation. Relief may be obtained by a short course of a corticosteroid application beneath polyethylene film or by a longer course without occlusion. Sedation is often necessary with a barbiturate, promethazine, or trimeprazine.

Disseminated neurodermatitis is a widespread form of lichenification with no known relation to contacts or drugs but with psychological factors prominent. It may resemble erythroderma but lichenification dominates the picture. The patient is often seriously disturbed emotionally and it may be advisable to obtain the help of a psychiatrist, although these patients are often resistant to psychotherapy. A period of inpatient treatment may help, with strong sedation and topically applied corticosteroids.