Dermatology clinic \mathcal{I}

A persistent scaly patch on the left hand

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A woman develops a localised, itchy, scaling patch on the back of her hand. What is the cause and how can it be treated?

Over a four-month period, a 42-year-old woman developed a localised itchy patch over the dorsum of her left hand (Figure 1). The erythematous and scaling area had a peripheral desquamating edge, and there were several pustules visible on the fingers. Moisturisers and topical corticosteroids had resulted in only a temporary decrease in the scaling and erythema.

Differential diagnosis

Scaling and erythema may suggest the following diagnoses.

- Irritant dermatitis frequently affects the hands, but it is usually bilateral and associated with maceration, fissuring and erythema. It often extends to the palmar surfaces, which may be hyperkeratotic. Annular lesions are usually not seen.
- Allergic dermatitis may produce confluent patches of erythema with an urticarial component and gross vesicles. It may share features with irritant dermatitis. Pustules and annular lesions are rarely seen. Skin patch testing is useful in identifying the allergen.
- Subacute lupus erythematosus may present with acral, annular, scaling patches concentrated on sun-exposed sites. The individual lesions may appear psoriasiform, with erythema and compact scale. The lesions are usually not solitary and are often bilateral. Pustules are absent. Skin biopsy and serological tests for lupus will usually establish the diagnosis.
- **Tinea** localised to the hand is the correct diagnosis in this case. The main clues are the peripheral active edge, the presence of pustules and the failure to respond to topical corticosteroids. A skin scraping of the edge applied to a slide with 20% potassium hydroxide revealed numerous fungal elements (Figure 2). The scales can also be sent for culture to identify the specific fungal subtype.

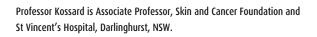




Figure 1. Erythematous and scaly patch on the dorsum of the patient's left hand. Note the presence of peripheral scale and small pustules on the fingers.



Figure 2. Potassium hydroxide preparation of peripheral skin scale revealing numerous linear fungal elements forming a web.

Treatment

Localised tinea will usually respond to topical antifungal agents, such as imidazole creams or terbinafine cream (Lamisil Cream), which need to be applied for two to four weeks. Recurrent or persistent cases and the presence of nail involvement may require systemic antifungals, such as ketoconazole (Nizoral), itraconazole (Sporanox) or terbinafine (Lamisil Tablets).

Keypoint

Peripheral scaling and pustules may be major clues to tinea and should prompt direct fungal examination or culture.