

# Why Topical Steroids as a Single Agent Therapy Do Not Always Work in Eczema?

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Eczema can be divided into different subtypes including discoid eczema, seborrhoeic eczema, asteatotic eczema and atopic eczema. When treatment of eczema is not effective, the following four possibilities have to be considered: wrong diagnosis, presence of infection, unsatisfactory compliance, and reaction to exogenous contact allergen or irritant.

## Is the correct diagnosis made?

If the treatment of eczema is not working, it is important to review the diagnosis. Many dermatological conditions can be confused with eczema. Tinea manuum is a differential diagnosis of hand eczema and may not always unilateral. In up to half of the cases of tinea manuum, both hands are involved. Tinea corporis can sometimes be mistaken as discoid eczema. Scabetic infestation not only can mimic eczema but also can cause flare-up of eczema. Other conditions that have clinical features similar to eczema include psoriasis and mycosis fungoides.

The prevalence of atopic eczema is rising in the United Kingdom. According to Hywel's criteria for the diagnosis of atopic eczema, a patient must have pruritis plus three or more of the following:

1. A history of flexural involvement
2. A personal history of asthma/dry skin
3. A history of generally dry skin
4. Onset before age of two
5. Visible flexural involvement

## Infection

Infections can cause exacerbation of eczema. The majority of staphylococci contaminating eczematous skin contain toxins which have been identified as superantigens. Superantigens can stimulate large numbers of the host T-cells. They do not need prior antigen processing and are immunogenic at minute concentrations. Staphylococci superantigens can cause exacerbation of eczema through T-cell stimulation, IgE production and selective activation of skin homing lymphocytes. Therefore combination therapy of topical antibacterial and corticosteroid may offer benefit in resistant cases of eczema.

## Compliance

Compliance is an important cause of poor responsiveness to topical agents. Many patients nowadays turn to alternative therapy, and may actually not be using the treatment prescribed for eczema due to "steroidophobia". It is also useful to check whether patients are using emollients adequately. Patients with eczema should be prescribed adequate amount of topical medications. Oral antihistamines should be advised for pruritus. It is important to make sure that patients have realistic expectations: there is no "cure" for atopic eczema.

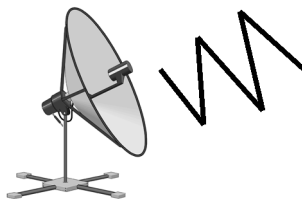
## Exogenous allergens or irritants

When eczema does not respond to topical corticosteroids, the possibility of the presence of exogenous allergens or irritants should be considered. It is important to enquire about the patient's home and work environment as well as hobbies. For irritant dermatitis, the threshold for irritancy exhibits a large variation in the population. Medicaments are frequently causes of allergic contact dermatitis. In a study with 1,119 subjects, 3.6% showed a positive

patch test reaction to neomycin, 0.7% to fusidic acid and 0.3% to clioquinol. Allergy to corticosteroids can also occur. Tixocortal pivalate and budesonide can be used for patch testing to identify allergy towards topical corticosteroids. Allergy to preservatives, fragrance, rubber, metals, resins and dyes are common and can be identified by patch testing.

**Learning points:**

*When treatment of eczema is not effective, the following four possibilities have to be considered: wrong diagnosis, presence of infection, unsatisfactory compliance, and reaction to exogenous contact allergen or irritant.*



**Web sites of Dermatology & Venereology in Hong Kong**

**The Homepage of the Hong Kong Society of Dermatology & Venereology**  
<http://www.medicine.org.hk/hksdv/>

**Hong Kong Dermatology & Venereology Bulletin**  
 (Official Publication of the Hong Kong Society of Dermatology & Venereology)  
<http://www.medicine.org.hk/hksdv/bulletin.htm>

**Hong Kong Dermatology & Venereology Bulletin**  
 (Subscription site of Blackwell Science Ltd.)  
<http://www.blacksci.co.uk/~cgilib/jnlpage.bin?Journal=hdv&File=hdv&Page=ed>

**Handbook of Dermatology & Venereology**  
 (Published by Social Hygiene Service, Department of Health)  
<http://www.hkmj.org.hk/skin/>

**CME Online (Dermatology)**  
 (CME Programme accredited by the Hong Kong College of Family Physicians)  
<http://www.medicine.org.hk/cme/>

**The Homepage of the Asian Dermatological Association**  
<http://www.medicine.org.hk/ada/>

