

Severe cutaneous allergic reactions following topical antifungal therapy

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Topical clotrimazole with or without corticosteroids is widely used for the topical treatment of fungal skin infections. Here, we report on 10 patients (age 40–75 years, 8 males) referred to our clinic because of severe cutaneous drug eruptions following application of topical antimycotics in 2008–2011.

Case reports

Antifungal creams had been used to treat clinically or mycologically diagnosed infections with dermatophytes or intertrigo. Seven to 21 days after initiation of antifungal therapy, the patients developed widespread eczema as well as erythematous, maculopapular, erythema multiforme-like and blistering eruptions, that occurred in addition to intense eczematous reactions at application sites associated with peripheral blood eosinophilia, suggesting drug reactions (Fig. 1). After the eruptions had resolved, patch testing was performed with the European baseline, antimycotic agent, corticosteroid, preservative, and emollient series (Almirall Hermal, Reinbek, Germany) and culprit antifungal and corticosteroid creams used by the patients on Finn Chambers® on Scanpor® tape (SmartPractice, Phoenix, AZ, USA) applied for two days, with readings at D3 and D4. Five patients were sensitized to tixocortol pivalate or prednisolone. Two patients showed sensitization to both corticosteroids and clotrimazole, as well as to the culprit antifungal

creams. Two patients were sensitized to clotrimazole but not to corticosteroids, although they had been exposed to these before. In 1 patient, a positive patch test reaction exclusively to the culprit drug was found.

Discussion

The most severe, erythema multiforme-like and blistering eruptions were associated with corticosteroid allergy, and eczematous and maculopapular exanthema were associated with clotrimazole allergy. We assume that a disrupted skin barrier caused by the underlying inflammation and/or the site of application promoted the development of contact allergy with widespread skin eruptions. According to the recent literature, patients are either exclusively allergic to group 1 corticosteroids or to the entire spectrum of corticosteroids (1). Our patients responded well to topical clobetasol propionate or mometasone furoate (group 3). It is of note that, in 1 of our patients, the skin eruption caused by topical corticosteroids had dramatically worsened after systemic therapy with prednisolone. Antimycotic agents are recognized as rare contact sensitizers (2).

With our case series of severe cutaneous eruptions following topical antimycotic treatment with or without corticosteroids, we want to raise awareness of potential allergic reactions to a frequently applied treatment. The application of the culprit drug should be stopped immediately. Patch testing with series of antimycotic agents, corticosteroids, additives and preservatives is recommended to identify the allergen, allowing patients to be advised about further treatment options.

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Fig. 1. Clinical presentations of contact allergy to topical antifungals: (a) maculopapular exanthema; (b) confluent erythema; (c) erythema multiforme-like exanthema; (d) haemorrhagic blisters and bullae; (e) eczematous reaction; (f) positive patch test reactions to clotrimazole and clotrimazole + prednisolone cream at D7.

References

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