

Discussion

Our case is similar to that of Grob et al. (10) in the onset of the urticarial reaction, but differs as to its intensity and extracutaneous involvement. In both cases, the term "contact urticaria" might appear inappropriate, as the drug was not applied on normal skin but on an ulcer. However, the term seems justified to use for the following reasons.

(i) The wheal initially appeared around the ulcer, corresponding exactly to the shape of the gauze.

(ii) The anaphylactic reaction did not occur immediately, but 40 min later.

(iii) An open test on normal skin gave a positive reaction after 20 min.

It is likely that the ulcer, by favouring systemic absorption of the drug (11, 12), contributed only to the generalization of the urticaria and to the ensuing anaphylactic reaction.

On the basis of the absence of histamine release from basophils after incubation of their patient's blood with rifamycin SV, Grob et al. (13) classified the contact urticaria as of unknown mechanism (type C). In our case, in the light of the results of the PK test, we consider that the reaction was IgE-mediated, inducing cutaneous and extracutaneous reactions to the release of histamine. Some reports of side-effects from systemically administered rifamycins (especially rifampicin) (3) would seem to support the role of an IgE-dependent immunologic mechanism.

In conclusion, we think that our case can be classified as a contact urticaria from rifamycin SV due to an IgE-dependent immunologic mechanism (type B) (13).

References

1. Bassetti D. *Chemioterapici antinfettivi e loro impiego razionale*, 3rd edition. Genova: Libreria Universitaria Pacetti, 1982.
2. Martindale. *The Extra Pharmacopoeia*, 28th edition. London: The Pharmaceutical Press, 1982: 1208.
3. Kraft D. Other antibiotics. In: De Weck A L, Bundgaard H (eds): *Allergic reactions to drugs*. Berlin: Springer-Verlag, 1983: 483–520.
4. Marliani A, Sertoli A, Giomi A. Problemi di sensibilizzazione ad antibiotici per uso topico. *Ital Gen Rev Dermatol* 1977; 14: 239–242.
5. Melchior E Jr, Samsoen M, Fousereau J et al. Quels sont les médicaments topiques le plus sensibilisants de la pharmacopée française? *La Revue du Praticien* 1979; XXIX: 3535–3537.
6. Riboldi A, Pigatto P D, Morelli M et al. Allergy to mercurochrome and rifamycin. *Contact Dermatitis* 1985; 12: 180.
7. Milpied B, Van Wassenhove L, Larousse C et al. Contact dermatitis from rifamycin. *Contact Dermatitis* 1986; 14: 252–253.
8. Balato N, Lembo G, Patruno G et al. Allergic contact dermatitis from rifamycin. *Contact Dermatitis* 1988; 19: 310.
9. Guerra L, Adamo F, Venturo N, Tardio M. Contact dermatitis due to rifamycin. *Contact Dermatitis* 1991; 25: 328.
10. Grob J J, Pommier G, Robaglia A et al. Contact urticaria from rifamycin. *Contact Dermatitis* 1987; 16: 284–185.
11. Fraki J E, Peltonen L, Hopsu-Havu V K. Allergy to various components of topical preparations in stasis dermatitis and leg ulcer. *Contact Dermatitis* 1979; 5: 97–100.
12. Angelini G, Rantuccio F, Meneghini C L. Contact dermatitis in patients with leg ulcers. *Contact Dermatitis* 1975; 1: 81–87.
13. Krogh G V, Maibach H I. The contact urticaria syndrome: an updated review. *J Am Acad Dermatol* 1981; 5: 328–342.

Patch testing with pollens of Gramineae in patients with atopic dermatitis and mucosal atopy

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Key words: patch testing; Gramineae; pollen; atopic dermatitis; atopy; plants; grasses; prick testing; RAST; immunoglobulin E.

Skin tests with aeroallergens, evaluating delayed reactions, have been performed since 1982, by authors who, employing different test substances and various test techniques, reported variable frequencies of posi-

tive responses (1). To our knowledge, the literature regarding Gramineae clearly describes patch testing only in 47 subjects with atopic dermatitis (AD), in 32 patients suffering from asthma or allergic rhinitis,

and in 10 healthy subjects (2–4). Positive responses were recorded in 8 AD patients, but none in subjects with mucosal atopy or in the control population.

To evaluate the elicitation of delayed reactions in atopic subjects by the pollen of Gramineae (grasses), we performed patch tests in 43 AD patients, aged 10 to 24 years, in 11 subjects with mucosal atopy and in 10 healthy subjects of the same age group. Patch testing was carried out with purified extracts of *Holcus lanatus* (velvet grass) supplied by the Bayropharm DHS Company. The extracts (alpha fraction) were dialysed with Amicon Hollow Fibre at 5000 Daltons and had a concentration of 1085 AUR/mg corresponding to 7485 PNU/mg (5).

For each test, 20,000 AUR of lyophilized alpha fraction of *Holcus lanatus* dissolved in glycerol-Coca solution were employed. This concentration is 50 × higher than that employed for skin prick testing. In each patient, a control test with Coca solution was performed. The solution was applied to a filter paper on a Finn Chamber, which was affixed to the healthy skin of the back of the patients to be tested. Patch tests were removed at 2 days and read at 2, 3 and 4 days.

Most subjects showed immediate urticarial responses spreading beyond the test area, after application of the test substance. 6 AD patients showed eczematous responses, showing erythema, oedema and vesiculation, which were more evident at D3 and D4 readings. 4 patients showed an exacerbation of their dermatitis while undergoing patch tests.

All subjects showing positive reactions had specific IgE to Gramineae on prick testing or RAST, and 5 of them had seasonal rhinoconjunctivitis or asthma. 1 single positive skin reaction was found in a boy affected by mucosal atopy without AD, with specific IgE to Gramineae. Histological examination from

biopsies taken from positive patches in 2 AD patients showed a dermal infiltrate consisting of neutrophils and mononuclear cells with abundant eosinophils.

Compared to the frequency of positive responses to patch tests performed with Dermatophagoides abstracts (1, 6), the prevalence of reactions to patch testing with Gramineae appears low, particularly since our AD patients were selected for worsening of their dermatitis during springtime. Thus, the aetiopathogenetic relevance of positive patch tests to Gramineae should be investigated further.

References

1. De Groot A C, Young E. The role of contact allergy to aeroallergens in atopic dermatitis. *Contact Dermatitis* 1989; 21: 209–214.
2. Desager K, Van Bever H P, Stevens W J. Contact sensitivity to aeroallergens in children with atopic dermatitis (AD) demonstrated by patch test. *J All Clin Immunol* 1987; 79: 236.
3. Adinoff A D, Tellez P, Clark R A F. Atopic dermatitis and aeroallergen contact sensitivity. *J All Clin Immunol* 1988; 81: 736–742.
4. Bruynzeel-Koomen C A F, Van Wichen D F, Spry C J F, Venge P, Bruynzeel P L B. Active participation of eosinophils in patch test reactions to inhalant allergens in patients with atopic dermatitis. *Br J Dermatol* 1988; 118: 229–238.
5. Watson H K, Rooke M B. A proposed unitage system for allergen extracts. *Allergy* 1982; 37, suppl. 1: 24.
6. Seidenari S, Manzini B M, Danese P, Giannetti A. Positive patch tests to whole mite culture and purified mite extracts in patients affected by atopic dermatitis, asthma and rhinitis. *Annals of Allergy* 1992: in press.

Hearing aid depigmentation

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Key words: hearing aid; depigmentation; acrylonitrile-butadiene-styrene copolymer; plastics; monobenzyl ether of hydroquinone.

Dermatitis from hearing aids is well documented (1, 2), but not depigmentation.

Case Report

A 60-year-old woman presented with depigmentation on the front of the chest and in the right ear canal

for the past year (Fig. 1). She had been using a hearing aid for almost 3 years. Depigmentation was not preceded by any inflammation. On enquiry from the manufacturer, it was learnt that the hearing aid was made of ABS (acrylonitrile-butadiene-styrene copolymer), but no further details were forthcoming.

The patient was patch tested with scrapings from