

Table 1. Patch test reactions: +, infiltrated erythema; ++, infiltrated erythema with papules and vesicles; +++, infiltrated erythema with confluent vesicles; ?a, only erythema, suspected allergic

	D2	D3	D4
suspected medicament (1:10)	?a	++	++
goldenrod (as is)			
1:1	+	+++	+++
1:10	+	++	++
1:30	+	+	+
1:100	—	?a	—
other ingredients	—	—	—
tansy	?a	+	+
yarrow	?a	+	+
nickel	—	+	++

and 1:100 (in NaCl) alone, tansy, yarrow and nickel (Table 1). The other ingredients of the oral preparation, including cellulose, talcum, saccharin, polyvidon, acetyltriethyl citrate and acrylic resins, were all negative.

Comment

Goldenrod (*Herba solidaginis*) is a Compositae plant, handled frequently by florists and druggists, containing flavonoides, saponines, phenolglucosides, diterpenes and clerodane. Sesquiterpene lactones have been suggested but not yet found. In recent years, goldenrod has become more often used, because of its diuretic, anti-inflammatory, bacteriostatic and spasmolytic effects, and its rare or absent complications. It is known as a weak sensitizer

(1) and there are only a few publications with positive patch tests. Frain-Bell & Johnson (2) found about 15% positive reactions to goldenrod in men with photosensitivity dermatitis or actinic reticuloid syndrome. Other authors have reported positive reactions to goldenrod in Compositae dermatitis, photosensitivity dermatitis and airborne contact dermatitis (3–5).

To our knowledge, this is the 1st reported case of allergic contact dermatitis after oral treatment with goldenrod (systemic contact dermatitis). There was no photosensitivity history in our patient. The other positive reactions to tansy and yarrow could be interpreted as cross-reactivities due to Compositae species, because the patient had no occupational or leisure contact with these plants.

References

1. Zeller W, De Gols M, Hausen B M. The sensitizing capacity of Compositae plants. *Arch Dermatol Res* 1985; 277: 28–35.
2. Frain-Bell W, Johnson B E. Contact allergic sensitivity to plants and the photosensitivity dermatitis and actinic reticuloid syndrome. *Br J Dermatol* 1979; 101: 503–512.
3. Hausen B M, Vieluf K. *Allergiepflanzen-Pflanzenallergene: Handbuch und Atlas der allergieinduzierenden Wild- und Kulturpflanzen*. Landsberg/München: Ecomed Verlagsgesellschaft, 1997.
4. Paulsen E. Compositae dermatitis: a survey. *Contact Dermatitis*. 1992; 26: 76–86.
5. Hjorth N, Roed-Petersen J, Thompsen K. Airborne contact dermatitis from Compositae oleoresins simulating photodermatitis. *Br J Dermatol* 1976; 95: 613–620.

Bufexamac and diclofenac: frequency of contact sensitization and absence of cross-reactions

A. BARBAUD¹, P. TRÉCHOT², A. AUBLET-CUVELIER¹, S. REICHERT-PENETRAT¹ AND J.-L. SCHMUTZ¹

¹Dermatology Department, Fournier Hospital, 36 Quai de la Bataille, 5400 Nancy, France

²Pharmacology Department, University Hospital of Nancy, 5400 Nancy, France

Key words: bufexamac; diclofenac; patch tests; intradermal tests; medicaments; non-steroidal anti-inflammatory drugs; arylalkanoic acid derivatives. © Munksgaard, 1998.

Bufexamac, marketed for topical use, and diclofenac, marketed for topical or systemic use, are both non-steroidal anti-inflammatory drugs (NSAIDs) belonging to the arylalkanoic acid derivatives (AADs).

Patients and Methods

Patch tests with bufexamac and diclofenac (both 5% pet.) were performed on 1008 consecutive patients, 1 of whom was referred after urticaria following intramuscular diclofenac. Patients positive to bufexamac or diclofenac were asked if they had ever used one of these AADs and if they remembered any adverse cutaneous reactions. Patients were actually shown all products mar-

keted for topical or systemic use in France that contain these 2 NSAIDs.

Results

11 patients (1.09%) patch tested positively to bufexamac. 1 other patient patch tested positively to diclofenac and did not remember any previous use of AADs. No cross-sensitization was observed between bufexamac and diclofenac. 9 of the 11 patients positive to bufexamac reported previous use of a bufexamac-containing cream, but only 2 of these 9 recalled any intolerance to it. 2 of the 11 patients positive to bufexamac reported being orally prescribed diclofenac, but neither recalled any intolerance.

The patient with urticaria due to diclofenac patch-tested negatively to both bufexamac and diclofenac, and prick tested negatively to diclofenac. Intradermal tests performed, according to previously-published procedures (1), with diclofenac diluted to 2.5 and 25 mg/ml, were negative at 30 min but positive at 24 h (5 negative controls).

Comment

Contact sensitization to bufexamac is not rare, though often unknown or forgotten by the patient, but seems to be less frequent in our series than in previous reports (2, 3). Bufexamac (4-butoxy-N-hydroxy-benzeneacetamide) and diclofenac (2[(2,6-dichlorophenyl)amino]-benzeneacetic acid) both have a benzene ring, with an acetamide (bufexamac) or an acetic acid group (diclofenac) on the alkyl chain. This difference might explain the absence

of cross-sensitization. From these preliminary results, it appears that a positive patch test to bufexamac is not a contraindication to the future administration, either topically or systemically, of diclofenac.

References

1. Barbaud A, Reichert-Penetrat S, Tréchet P, Jacquin-Petit M-A, Ehlinger A, Noirez V, Fauré G C, Schmutz J-L, Béné M-C. The use of skin testing in the investigation of cutaneous adverse drug reactions. *Br J Dermatol* 1998; 139: 49–58.
2. Kränke B, Derhaschnig J, Komericki P, Aberer W. Bufexamac is a frequent contact sensitizer. *Contact Dermatitis* 1996; 34: 63–64.
3. Kränke B, Szolar-Plazer C, Komericki P, Derhaschnig J, Aberer W. Epidemiological significance of bufexamac as a frequent and relevant contact sensitizer. *Contact Dermatitis* 1997; 36: 212–215.

Purpuric clothing dermatitis due to Disperse Yellow 27

CATERINA FOTI, GIUSEPPE ELIA¹, RAFFAELE FILOTICO AND GIANNI ANGELINI

Department of Dermatology, University of Bari, Piazza Giulio Cesare 11, 70124 Bari, Italy

¹S. Maugeri Foundation, Department of Industrial and Environmental Hygiene, Bari, Italy

Key words: allergic contact dermatitis; purpuric; clothing dyes; Disperse Yellow 27; azo dyes; high-performance liquid chromatography (HPLC). © Munksgaard, 1998.

Case Report

A 63-year-old man presented with a 3-month history of a recurrent pruriginous purpuric eruption on skin areas in direct contact with his trousers. At the 4th attack, the purpuric eruption became generalized and the patient was hospitalized. On examination, minute purpuric and vesicular lesions were observed. All hematological findings were normal. Investigations for the common triggers of cutaneous vasculitis were negative. The lesions cleared in 1 month, after treatment with oral antihistamines.

Patch tests were performed with the European standard series, a series of textile finishes and dyes (Chemotechnique), a series of 12 further azo dyes from various manufacturers, and acetone and alcoholic extracts of his clothes, using Finn Chambers, Scanpor tape and 2-day occlusion, readings being made on days (D) 2, 3, 4 and 7. Purpuric and vesicular reactions were observed to pure and commercial Disperse Yellow 27 1% pet., and to alcoholic and acetone extracts from a piece of trouser lining. 20 controls tested with the latter were negative. A skin biopsy from the patch test reaction to Disperse Yellow 27 showed the pattern of allergic contact dermatitis, associated with red cell extravasation.

High-performance liquid chromatography (HPLC) was carried out on the acetone extract of the lining and on pure and commercial Disperse Yellow 27. The lining had been extracted with acetone in an ultrasonic bath for 1 h. The extract had been concentrated using a rotary vacuum pump. The column was a LC-PAH 25 cm×4.6 mm from Supelco (Sigma-Aldrich, Milano), the

mobile phase 80% H₂O/20% acetonitrile to 100% acetonitrile in 30 min with a flow rate of 1.5 ml/min, and the detector UV at 254 nm. 1 component (retention time 24.50 min) was common to both commercial and pure Disperse Yellow 27, as well as to the extract.

Discussion

Purpuric dermatitis is an uncommon manifestation of contact allergy, mainly related to rubber products (IPPD), azo compounds and para-phenylenediamine. It has been suggested that IPPD has an affinity for vascular endothelium (1, 2). Alternatively, cytokines may be responsible for endothelial damage (3). Disperse Yellow 27 is an azo dye available as Serisol Fast Yellow GDW. It is used for dyeing acetate and polyester fibres and is obtained by reaction between p-aminoacetanilide and p-phenylphenol. It has not previously been reported as a contact allergen. For more than 1 year now, the patient has avoided the trousers with the causal lining and so far no new lesions have developed.

References

1. Fisher A A. Allergic petechial and purpuric rubber dermatitis: the PPPP syndrome. *Cutis* 1974; 14: 25–27.
2. Shmunes E. Purpuric allergic contact dermatitis to para-phenylenediamine. *Contact Dermatitis* 1978; 4: 225–229.
3. Van Joost T, Van Ulsen J, Vuzevsky D D. Purpuric contact dermatitis from benzoyl peroxide. *J Am Acad Dermatol* 1990; 22: 359–361.