

Allergic contact dermatitis to etofenamate. Cross-reaction to other nonsteroidal anti-inflammatory drugs

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Introduction

Etofenamate is an anthranilic acid derivative used for its anti-inflammatory properties in the treatment of musculoskeletal disorders, soft tissue trauma, and some inflammatory skin

diseases. Allergic contact dermatitis to etofenamate has been rarely reported (1–12). However, topical preparations for rheumatism and sprains are widely used nowadays. Therefore, it is possible that more cases of sensitization are predictable and will be of clinical importance in the future.

The aim of this study was to describe the clinical features and the cross-sensitivity pattern to other non-steroidal anti-inflammatory drugs (NSAIDs) in patients with allergic contact dermatitis to etofenamate.

Patients and Methods

We have studied 4 patients (3 females and 1 male) with eczema after using an anti-inflammatory gel containing etofenamate (Table 1). All patients showed positive patch test with commercial etofenamate preparation, etofenamate 2% pet., and negative to the other compounds of the etofenamate gel: turpentine, carbapol, trimethylsulfoxide, and levomentol (kindly supplied by Chiesi SA, Barcelona, Spain).

Patch tests with different NSAIDs were performed in the 4 patients (Table 2) and 25 control subjects. No reactions were recorded in control population.

Discussion

Allergic contact dermatitis because of etofenamate has rarely been reported (3–12). Patients who have etofenamate contact dermatitis showed (i) tolerance to other non-structurally related NSAIDs (1, 2, 10) and (ii) lack of cross-sensitivity with the most anthranilic derivatives, such as meclofenamate, niflumic, and mefenamic acid (2, 12).

3 of our patients showed all the above-mentioned clinical characteristics, but 1 patient also displayed a positive patch test response to flufenamic acid (Table 2). To our best knowledge, flufenamic acid and etofenamate have been only involved in a single patient with photoallergic contact dermatitis (11). As both are anthranilic compounds and flufenamic acid is an etofenamate ester form (Fig. 1), it is possible that the similar chemical structure justifies cross-sensitivity observed in this case and, eventually, other cases of cross-reactivity in susceptible patients.

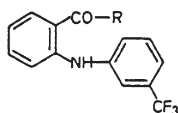
From these data, we could conclude that patients who have positive

Table 1. Patients with allergy contact dermatitis to etofenamate. Clinical findings and patch test results

Patient no.	Age (years)	Sex	Atopic history	Patch test			
				Standard series	Commercial preparation	Etofenamate 2% pet.	Other compounds
1	66	F	—	—	+++	+++	—
2	33	M	Allergy rhinitis/asthma	Mercury +++	+++	+++	—
3	24	F	Allergy rhinitis/asthma	—	+++	+++	—
4	36	F	Allergy rhinitis/asthma	—	+++	+++	—

Table 2. Patch test results nonsteroidal anti-inflammatory drug series

Trade name	Drug	Vehicle (% pet.)	Patient no. 1		Patient no. 2		Patient no. 3		Patient no. 4	
			48 hr	96 hr	48 hr	96 hr	48 hr	96 hr	48 hr	96 hr
Meclomen® (Parke Davis SA, Barcelona, Spain)	Sodium meclofenamate	3	—	—	—	—	—	—	—	—
Coslan® (Pfizer SA, Madrid, Spain)	Mefenamic acid	10	—	—	—	—	—	—	—	—
Niflactol® (Upsa Médica SA, Madrid, Spain)	Niflumic acid	3	—	—	—	—	—	—	—	—
Movisilin® (Alfarma SA, grupo Sankyo, Madrid, Spain)	Flufenamic acid	1	—	—	—	—	—	—	—	—
Inacid® (MSD SA, Madrid, Spain)	Indomethacin	2	++	+	—	—	—	—	—	—
Voltaren® (Novartis SA, Barcelona, Spain)	Diclofenac sodium	5	—	—	—	—	—	—	—	—
Neobrufen® (Abbott laboratories SA, Madrid, Spain)	Ibuprofen	3	—	—	—	—	—	—	—	—
Orudis® (Sanofi-aventis SA, Barcelona, Spain)	Ketoprofen	10	—	—	—	—	—	—	—	—
Froben® (Cantabria SA, Madrid, Spain)	Flurbiprofen	1	—	—	—	—	—	—	—	—
Butazolidina® (Novartis SA, Barcelona, Spain)	Phenylbutazone	2	—	—	—	—	—	—	—	—
Feldene® (Pfizer SA, Madrid, Spain)	Piroxicam	1	—	—	—	—	—	—	—	—
		0.5	—	—	—	—	—	—	—	—



R = $\text{OCH}_2\text{CH}_2\text{OCH}_2\text{CH}_2\text{OH}$: etofenamate
R = OH: flufenamic acid

Fig. 1. Chemical structure of anthranilic derivatives etofenamate and flufenamic acid.

patch test response to etofenamate could use another topic NSAIDs, except flufenamic acid (and other anthranilic derivatives) until specific patch tests have been performed.

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