

Discussion

Irritant contact dermatitis due to dried sea salt crusts arises from a combination of friction, mechanical trauma, abrasion, and the hypertonicity and desiccant properties of the salt. The lesions are non-specific in appearance and most commonly occur in the cubital fossa of the dominant arm. Prevention in the context of this industry is based upon the principles of containment (tight fitting lids), good workplace hygiene, and the use of rubber or PVC gloves of sufficient length.

References

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What risk of piroxicam photodermatitis in thimerosal-positive patients?

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Key words: piroxicam; thimerosal; thiosalicylic acid; mercurials; patch testing technique; cross-sensitivity; photosensitivity; drug reactions. © Munksgaard, 1996.

Photodermatitis from systemic or topical piroxicam has been known for 10 years (1). Histologic findings, positive photopatch tests, and in vivo investigation (2) support photoallergy. However, the suddenness of lesions after starting therapy, skin manifestations rarely being vesicular, and experimental study (3) are not so supportive. In patients with piroxicam photosensitivity, frequent patch test reactions to thimerosal have been found, mainly in those sensitized to the thiosalicylate component (4). It has therefore been proposed that skin lesions are due to a photoproduct of piroxicam, chemically similar to thiosalicylic acid (5).

Patients and Methods

63 patients, 45 female and 18 male, aged from 5 to 65 years (mean 33.2 years) were tested with the allergens in Table 1. All had shown an erythematous, and sometimes vesicular, patch test reaction to thimerosal 0.1% pet. 2 different %s of thimerosal were applied to help exclude irritant reactions (6, 7). Patch and photopatch tests were performed on the upper back with Van der Bend square chambers (FIRMA-Diagent, Firenze), removed 2 days after application, and evaluated at 2 and 3 days according to the ICDRG criteria. Prick and photopricks tests with oxicams (SIGMA Aldrich, Milano) were carried out on the flexor forearms and evaluated 20 min, 1 and 2 days later. Photopatch and photopricks tests were irradiated with UVA (5 J/cm²) 2 days and 20 min after allergen application, respectively.

Results and Comment

The results of patch tests are shown in Table 2. Sensitivity to piroxicam is uncommon in subjects positive to

Table 1. Allergens used for skin tests

Skin tests	Allergens
patch test	thimerosal 0.1%
	thimerosal 0.05%
	thiosalicylic acid 0.1%*
	ammoniated mercury 1%
	merbromin 0.1%**
	mercuric chloride 0.05%**
	phenylmercuric acetate 0.01%**
	phenylmercuric nitrate 0.01%**
	piroxicam 10%
	tenoxicam 10%
photopatch test	thiosalicylic acid 0.1%*
	piroxicam 10%
	tenoxicam 10%
prick and photopricks test	piroxicam 2%†
	tenoxicam 2%†

* In ethanol; ** in water; † in ethanol; others in pet.

Table 2. Patch test reactions in 63 thimerosal 0.1% pet. positive subjects

	Thimerosal 0.05% pet. positives (N=38)	Thimerosal 0.05% pet. negatives (N=25)
piroxicam	3	—
thiosalicylic acid	7	—
mercurials	9*	3**
tenoxicam	—	—

* Mercuric chloride (4), ammoniated mercury (4), merbromin (1), phenylmercuric nitrate (1).

** Mercuric chloride (3), ammoniated mercury (3), merbromin (2), phenylmercuric acetate (1).

thimerosal 0.1% pet. (3/63; 4.8%), but commoner in those sensitized to thiosalicylic acid. The frequency of sensitivity to piroxicam, however, is probably higher, because many reactions to thimerosal are irritant, probably due to 0.1% pet. being used for patch testing (6, 7). If only subjects positive to thimerosal 0.05% pet. are considered, the frequency of sensitivity to piroxicam rises to 7.9% (3/38). This was neither photoinduced nor photoincreased, at least in our 3 patients, none of whom was sensitized to tenoxicam or showed positive reactions to prick tests. In conclusion, we believe it to be important to verify whether thiosalicylic acid is responsible for thimerosal sensitivity, because, in these cases, administration of piroxicam may be contraindicated (4, 8).

References

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Systemic contact dermatitis from sorbic acid

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Case Report

A 50-year-old man presented with eczema in the perianal and buttock areas for approximately 1 year. He had applied many creams during the preceding months, particularly Biafine®. However, several weeks before consultation, he had stopped using all such products and washed with water only. Patch tests revealed, at days 2 and 3, a ++ reaction to sorbic acid 2% pet. Since this allergy no longer appeared to be relevant via skin contact, for the patient had long discontinued the use of all soap products and topical medicaments, we hypothesized systemic contact with sorbic acid from alimentary ingestion. Having kept to a sorbic-acid-free diet for 15 days (Table 1), with no associated local treatment, the patient obtained complete recovery of his perianal and buttock dermatitis.

Discussion

This case of systemic contact allergy to sorbic acid maintained by ingestion can be compared with the 'baboon syndrome' described by Andersen et al. (1). Systemic allergic contact dermatitis can also manifest itself as dyshidrosis, nummular eczema, or reactivation of previous eczema or positive patch tests (2). This patient was prob-

Table 1. Sorbic-acid-free diet: foods to be avoided

Fruits

chestnut, dried mirabelle plum
prune, cream of prune
preserved fruits (except brown chestnut)
strawberries, currants, cranberries

Candies, biscuits

almond base, candies or baked goods made with an almond base
jellied candies
baked goods biscuit
melting chocolate candies
ice cream and sherbet made with fruits or gelling agent

Milk products

margarine, light margarine
light butter
cheese spread, spreads for bread, light spread milk specialties or reduced lipids inside
fruit yoghurt, soft white cheese with fruit

Other

refrigerated acidified salad containing meat and/or shellfish
preparation of vegetable base and fermented milk

Drinks

alcoholic drinks and aromatized drinks made with grape- or apple-flavoured base
mead

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