

Table 1. Patch test results

	6h	D1	D2	D3
Patch test (after tape stripping)				
involved skin:				
(buttock)				
sulfamethoxazole pp		++	++	++
trimethoprim pp	-	-	-	-
uninvolved skin				
(shoulder)				
sulfamethoxazole pp	-	-	-	-
trimethoprim pp	-	-	-	-

test site at 2 days showed a discretely spongiotic epidermis, with pronounced single-cell necrosis of keratinocytes and a subepidermal mononuclear infiltrate, containing many eosinophils. Patch tests in 5 controls revealed no irritant reactivity; applying sulfamethoxazole and trimethoprim as pure powder (pp).

Comment

The test results of this case demonstrate that drug hypersensitivity was responsible for the development of a bullous drug reaction, ultimately resulting in TEN (1-3), that identification of the cause was possible by patch testing, and most interestingly that positive reactivity was found *only* in skin previously affected by TEN. This

therefore opens up the possibility that alterations in the homing pattern of cytotoxic cells could contribute to pathophysiological processes typical of TEN (4-8).

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Contact allergy to diethylthiourea in a wet suit

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Key words: allergic contact dermatitis; diethylthiourea; sports equipment; wet suit; windsurfing; lack of cross-sensitivity. © Munksgaard, 1996.

Case Report

A 23-year-old non-atopic woman was referred with recurring eczema on the buttocks, fronts of the thighs, thorax, and abdomen. This had begun 4 years previously and was clearly related to wearing one particular wet suit (Cristal Wet Suits, Torquay-Vic, Australia) while windsurfing. Curiously, the eczema remained limited to parts of the body corresponding to the purple and not the pink portions of her two-color wet suit (Figs. 1, 2). Previous patch tests had shown contact allergy to colophony, compatible with intolerance to adhesive tape but not considered relevant to her present skin problem.

Patch tests were again performed with a standards series, and also with a textile series, a rubber series and 2 pieces of wet suit, 1 from the 'eczema portion' (purple with a black foam-rubber lining) and 1 from the 'non-

eczema portion' (pink with a brown rubber-like lining). These tests gave the following results:

Patch tests	D2	D3
standard series:		
colophony (20% pet.)	+	++
rubber series:		
diethylthiourea (1% pet.)	++	++
(dibutylthiourea and diphenylthiourea, 1% pet., were negative)		
own materials:		
purple lining	+	+
pink lining	-	-

To determine the relevance of the positive test to diethylthiourea, chemical analyses were performed. The presence of small quantities of diethylthiourea was indicated by TLC and HPLC in the black lining of the

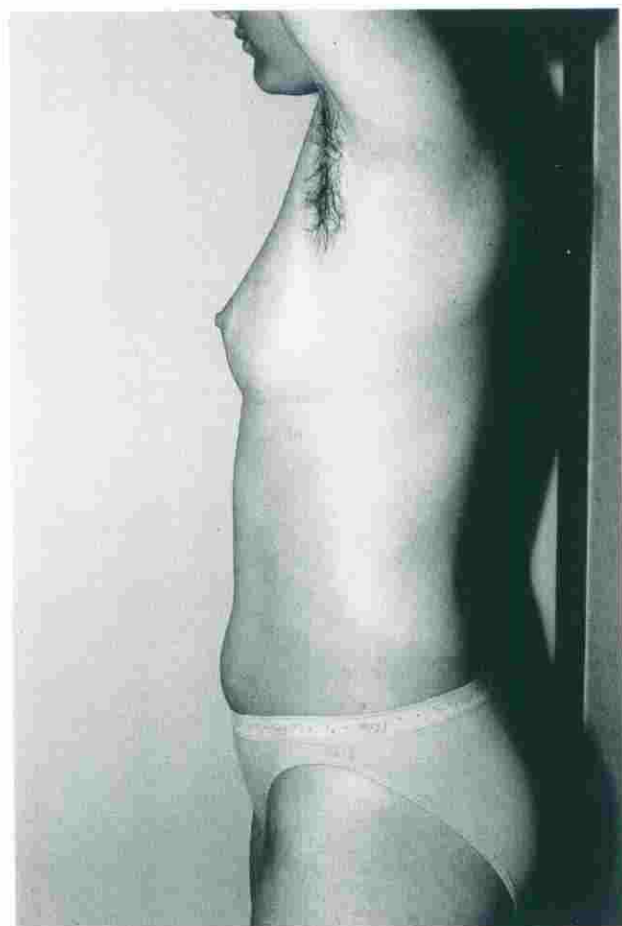


Fig. 1. Pattern of the contact eczema reaction to the purple portions of the wet suit.

purple material, but not in the brown lining of the pink portion. (As the patient wanted to sell her suit, no more material was available to perform a quantitative analysis.) Therefore, the contact eczema was most probably due to the diethylthiourea present in the black, foam-rubber lining of the purple portion of the wet suit.

Discussion

Among cases of contact dermatitis from water-sports equipment is one from a wet suit without identification of the allergen* and hypersensitivity to IPPD in a diver's mask (1, 2), one due to MBT in a swimming cap (3), and periorbital leucoderma as a reaction to goggles (4). Reports of contact allergy to thiourea derivatives used in the manufacture of neoprene rubber, which is used to make wet suits, swimming gear, clothing for fire fighters, and products for making doors watertight, have been published since the 1960s. With regard to water-sports equipment, the following reports have been published in the literature: diethylthiourea, ethylbutylthiourea**, di-

* Castelain P Y. Personal communication, 1980.

** Taylor J. Contact dermatitis from goggles. Paper presented at the Patch-test Symposium of the Meeting of the American Academy of Dermatology, Washington DC, 1984.



Fig. 2. The two-color wet suit to which the patient reacted.

butylthiourea in swimming goggles (5), 2 cases of contact eczema from diethylthiourea in a wet suit (6, 7), and dibutylthiourea in swim fins (8).

Besides their presence in neoprene rubber, however, thiourea derivatives have also been reported as contact allergens in many other occupational (e.g., (9)) and non-occupational areas (e.g., due to a limb prosthesis, (10)) and even in photocopy paper (see (11) for review) and silver polish (12). Moreover, photoallergic contact dermatitis may also occur (11, 12). The cross-sensitivity patterns for thiourea compounds seem to be rather unpredictable (e.g., 8, 13), so thiourea derivatives should be tested individually. This case further demonstrates that chemical analyses are so useful to determine the relevance of contact allergens identified.

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Allergic contact dermatitis from polyisobutylene in stoma bags

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Key words: allergic contact dermatitis; polyisobutylene; hydrocolloids; stoma bags; contact urticaria. © Munksgaard, 1996.

Case Report

A 48-year-old woman was diagnosed as having Crohn's disease in 1981. Following numerous fistulae, she had a total colectomy and ileostomy in February 1992. Shortly after she started wearing her stoma bag (Salts Simplicity), she developed an eroded eczematous area around the stoma (Fig. 1). Skin biopsy showed a dermatitis and excluded cutaneous Crohn's disease.

If she discontinued wearing the stoma bags, the skin would heal completely within 10-14 days, but the dermatitis would consistently start within 2 days of reusing the bags. Initial patch testing showed reactions (+ + at D4) to colophony, benzoyl peroxide, and the adhesive ring of the bag. However, enquiries regarding the constituents of the adhesive ring revealed that colophony and benzoyl peroxide were absent. The ring itself consists of a hydrocolloid laminated with a polythene film. The hydrocolloid component consists of a citrus-derived pectin of edible food grade, sodium carboxymethylcellulose, gelatine BP and polyisobutylene.

Patch tests carried out with polyisobutylene, as is, elicited a contact urticaria after 10 min (Fig. 2) and a + + eczematous reaction at D4. The polyisobutylene was diluted to 0.1%, 0.5%, 1.0% and 5% solutions in ether and

tested on the patient and 5 control subjects. A positive (+) reaction to 5% polyisobutylene in ether occurred with the patient, but the 5 control subjects tested negative.

Our patient has had a continent ileostomy (Koch's pouch) fashioned, but the valve mechanism is unsatisfactory and she still needs to wear stoma bags.

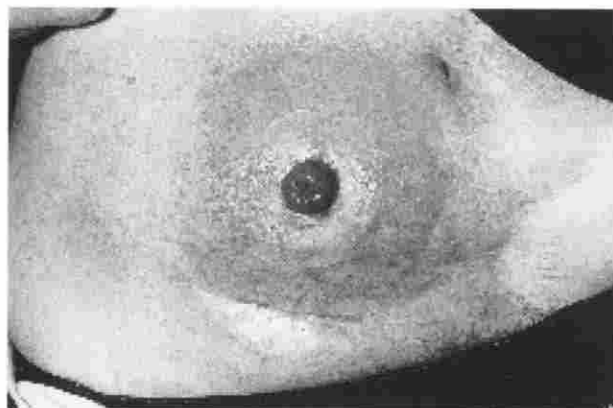


Fig. 1. Erosive parastomal reaction.



Fig. 2. Contact urticaria from polyisobutylene.

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