

In 1 case, NRL allergy was considered occupational (past relevance).

Case Report

A 40-year-old atopic hairdresser had had flexural dermatitis in childhood, and had worked in hairdressing since she was 17-years-old. She did not have respiratory symptoms. She had had hand dermatitis for 19 years. Initially, patch tests with a standard series and a hairdressing series had been negative. She was under dermatological follow-up when recruited for our study. Occasionally, she had had more extensive dermatitis, but in the past few years, only on her hands, both palmar and dorsal. She had previously used NRL gloves, but for the past 6 years, only vinyl gloves.

Patch testing with a modified European standard series and an extensive hairdressing series (4) was negative. Prick testing with environmental allergens and NRL was positive to cat and dog epithelium (diameter 5 mm), 3 NRL allergens (all 5 mm), and *Pityrosporum ovale* (6 mm). Histamine hydrochloride, 10 mg/ml, provoked a 7-mm reaction. A provocation test with an NRL glove produced whealing in 30 min, whereas a vinyl glove was negative. A RAST to NRL was negative (<0.3 kU/l).

It was concluded that the patient had been sensitized to NRL, but that the main cause of her hand eczema was irritation from chemicals and wet work. She has continued to work in her own hairdressing salon.

Discussion

The incidence of NRL allergy is highest in health-care workers (6), though industrial occupations may also be

at risk (7). The prevalence in our hairdressers was much lower than in those of Van der Walle & Brunsveld (3) in The Netherlands: 1.1% rather than 11%. Finnish hairdressers may use NRL gloves less than Dutch, or the quality of NRL gloves used by hairdressers may be better in Finland, though the latter seems unlikely (8). Vinyl gloves should probably be recommended for hairdressers.

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Allergic contact dermatitis from dithio-2,2-bis(benzmethylamide)

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Key words: occupational; allergic contact dermatitis; dithio-2,2-bis(benzmethylamide); 1,2-benzisothiazolin-3-one; preservatives; biocides; chemical industry; maintenance mechanic. © Munksgaard, 1999.

Dithio-2,2-bis(benzmethylamide) has been marketed for the last 20 years, with no reports of dermatitis.

Case Report

A 51-year-old engineering support technician presented with exposure-pattern dermatitis. He had been dismantling a mill last used in the manufacture of 1,2-benzisothiazolin-3-one (BIT) and previously of dithio-2,2-bis(benzmethylamide). He wore overalls, a facemask and alternated between vinyl and leather-palmed gloves. His overalls sleeves had become soaked with water previously used to swirl down the mill, some of which ran

into his gloves. He finished work at 01:30, having noticed no obvious symptoms. He had a shower and went home. He awoke 9 h later with itchy swollen hands and a rash on the forearms and face. That evening, he saw his occupational health nurse and was treated with a potent topical corticosteroid on the arms and with a mild topical corticosteroid on the face, with improvement. He had a history of hay fever and was on treatment for hypertension. When seen 5 days later, the dermatitis was settling, though he did still have papular eczema on the lateral wrists and between some fingers.

Patch tests were performed with BIT (Chemotechnique) and serial dilutions of manufactured product

Table 1. Results of patch testing to 1,2-benzisothiazolin-3-one and manufactured product (active ingredient %s)

	Chemical		D2	D4
Chemotechnique manufactured product	1,2-benzisothiazolin-3-one	0.05% pet.	++	++
	1,2-benzisothiazolin-3-one	0.33% aq.	++	++
		0.18% aq.	++	++
		0.03% aq.	+	+
	dithio-2,2-bis(benzmethylamide)	1.25% aq.	–	+
		0.25% aq.	–	+
		0.125% aq.	–	–
		0.025% aq.	–	–

containing either BIT or dithio-2,2-bis(benzmethylamide) as active ingredients. Positive reactions are shown in Table 1. A + response was seen at D4 to dithio-2,2-bis(benzmethylamide) at 1.25% and 0.25%. Dithio-2,2-bis(benzmethylamide) in 10 controls at 0.25%, and subsequently in 20 controls at 1.25%, was negative.

Discussion

BIT is a popular preservative and its rôle as a potential skin sensitizer is confirmed (1). Dithio-2,2-bis(benzmethylamide) is used primarily as a paint-film preservative, typically at 0.25%, and has also been used as an in-can paint preservative, typically at 0.05%. The sensitization potential of dithio-2,2-bis(benzmethylamide) has been experimentally assessed using the guinea pig maximization test (2) and the murine local lymph node assay (3), demonstrating that it had the potential to be a sensitizer at 3% w/v and above.

This employee was exposed to potentially high con-

centrations of dithio-2,2-bis(benzmethylamide), which may account for sensitization and subsequent allergic contact dermatitis. However, this is considered an isolated case, since there has been no previously reported human sensitization at in-use concentrations. The lack of other reports of allergic contact dermatitis from this chemical would suggest that it remains safe under usual working conditions.

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Contact urticaria and systemic anaphylaxis from codfish

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Key words: allergic; anaphylaxis; contact urticaria; fish; food; open test; urticaria; cod; sardine. © Munksgaard, 1999.

Case Report

A 19-year-old gas station employee developed generalized urticaria, angioedema of the face and lips, and dry cough, 20 min after his cousin, a fisherman, walked out of his store and greeted him by placing his hands firmly on his bare upper arms. The patient had a history of fish allergy from the age of 3 years and, since that time, had strictly avoided eating all seafood. Food allergy had been diagnosed by his paediatrician after 2 episodes of generalized urticaria, with diarrhoea and vomiting, following fish soup. At age 15 years, he had had an episode of localized urticaria and angioedema of the right side of the face and the lips within 30 min of his mother having kissed him on the

right cheek after having just eaten codfish. At age 18, he had had a generalized anaphylactic reaction after eating a hamburger at a fast-food restaurant: he had later been told that the hamburger had been fried in the same oil used to fry codfish.

6 months after resolution of his latest episode, the patient was investigated at our hospital for fish allergy. Open tests on intact skin with raw codfish (right forearm) and sardine (left forearm) gave large wheal-and-flare reactions at both sites after 10 min, and the tests were removed. At 20 min, the patient complained of dysphoria, generalised pruritus, including the palms and soles, nasal irritation, tachycardia and dry cough. He was treated with subcutaneous epinephrine (0.5 ml, 1:1000), parenteral antihistamines and corticosteroids,