

and nickel sulfate. When tested with the constituents of Lomaherpan® kindly supplied by the manufacturer, the patient showed a positive reaction to chloroacetamide 0.07% aq.

Patch tests

	D2	D3	D4
nickel sulfate	-	++	++
Viru Merz-Serol®	-	-	+
Lomaherpan®	?+	+	++
Lomaherpan® constituents			
chloroacetamide 0.07% aq.	-	+	+
other constituents	-	-	-

Comment

Sensitisation to Viru Merz-Serol® has often been described, mostly caused by its component tromatadin (1). Lomaherpan®, another medication for labial herpes, has been on the market for only a few years. Sensitization to chloroacetamide has not often been described. Nater (2) was the first to report a case. It has been reported to be a strong sensitizer, even in low concentrations (3). Nevertheless, it is still used in cosmetics, medications and also in several occu-

pational materials such as coolant oils (4), nylon spin finishes (5), paints (6) and glues (7). Sensitisation to chloroacetamide is probably acquired in most cases from occupational contact.

References

1. Agathos M, Remien C, Mutzeck E. Kontakiallergie auf Tromatadin. *Dermatosen* 1984; 32: 157-160.
2. Nater J P. Allergic reactions due to chloroacetamide. *Dermatologica* 1971; 142: 191.
3. Marzulli F, Maibach H. Antimicrobials: experimental contact sensitisation in man. *Journal of the Society of Cosmetic Chemists* 1973; 24: 399-421.
4. Hjort N. N-methylol-chloroacetamide, a sensitizer in isolant oils an cosmetics. *Contact Dermatitis* 1979; 5: 330-331.
5. Savage J. Chloroacetamide in nylon spin finish. *Contact Dermatitis* 1978; 4: 179.
6. Wahlberg J E, Högberg M, Skare L. Chloroacetamide allergy in house painters. *Contact Dermatitis* 1978; 4: 116-117
7. Bang-Pedersen N, Fregert S. Occupational allergic contact dermatitis from chloroacetamide in glue. *Contact Dermatitis* 1976; 2: 122-123.

Allergic contact dermatitis from triglycidyl isocyanurate in polyester paint pigments

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Key words: allergic contact dermatitis; epoxy resin; occupational; paint; triglycidyl isocyanurate; prevention.

Occupational contact dermatitis is common among painters (1). Technological advances have resulted in new potential contact allergens which can only be detected by patch testing with the relevant paints (and their ingredients). Follow-up investigations of painting operations, after identifying cases of contact allergy, may prevent further cases.

Case Report

A 25-year-old Caucasian male began to work for a manufacturer of outdoor light fixtures. All fixtures assembled were sprayed with a protective paint.

Spray painting involved electrostatic charging of powdered polyester paint pigments and opposite charging of metallic surfaces to be painted. Painters applied the pigments with spray guns, aimed through portals in a spray booth, while standing outside the booth. Its interior was designed to recycle excess paint through a vacuum portal at its base. Painters wore latex gloves, half-face cartridge respirators, and disposable paper suits and hoods. Standing outside the booth minimized direct exposure to the paints. Immediately after coating, the painted light fixtures were heat cured in an oven.

During the first 4 months of employment, the

patient did general duties, involving cleaning outside the spray booth. He then became a spray painter, a job which he carried out without incident for 2 months. A new work procedure to increase recovery of excess paint was then instituted, whereby painters entered the booth at the end of the workshift to dislodge pigments from the inside walls with scrapers and air hoses. This clean-up resulted in much more direct skin exposure than the spraying itself.

Within 2 weeks of starting this new clean-up, the patient developed severe dermatitis of the ears, forehead, perioral skin and cheeks near the eyes, where pigment concentrated around the margins of his half-face cartridge respirator and paper hood, which required treatment with prednisone. Returning to work as a spray painter provoked similar episodes of dermatitis, also involving the neck, antecubital fossae, and forearms.

Patch testing was performed with the American Academy of Dermatology standard series (which included bisphenol A epoxy) and 1% dilutions of his powder paint pigments, reading at 48 and 96 h and grading by the method of the North American Contact Dermatitis Group (2). 1+ reactions were observed at 48 h to the polyester pigments, increasing to 2+ by 96 h. These pigments contained approximately 5% (by weight) triglycidyl isocyanurate, described by the manufacturer as a polyfunctional epoxy resin used to cross-link the polyester pigments upon heat activation. The bisphenol A epoxy in the standard series was negative.

The 2 principal constituents of the paint, polyester and technical grade triglycidyl isocyanurate, were obtained from the manufacturer. Pigment colorizers were not tested, since earlier patch testing indicated that all paints reacted, regardless of pigment color. Triglycidyl isocyanurate (0.5% pet.) produced a 2+ reaction at both 48 and 96 h; polyester resin (1% pet.) was negative. Patch tests to triglycidyl isocyanurate on 3 volunteer controls without dermatitis were negative. Triglycidyl isocyanurate is listed as a mild skin sensitizer in guinea pigs on the manufacturer's material safety data sheets. A literature survey found no previous reports of human irritation or allergy. No chemical analysis was performed to exclude the possibility that sensitization could have been due to a contaminant or byproduct in the technical grade material.

A follow-up visit to the company identified several work practices among employees where modifications could substantially reduce skin exposure in the spray paint operation. Most notably, the clean-up was changed so that workers no longer used air hoses inside the booths, thus eliminating unnecessary airborne exposure.

Comment

Allergic contact dermatitis is an occupational sentinel health event: a preventable disease whose occurrence serves as a warning signal that prevention in the workplace may need improvement (3). Active follow-up even of a single case of occupational allergic contact dermatitis may lead to substantial improvements in work practices, which reduce the risk of contact allergy among fellow workers.

References

1. Mathias C G T. Dermatitis from paints and coatings. *Dermatol Clin* 1984; 2: 585-602.
2. Fisher A A. *Contact dermatitis*, 3rd edition. Philadelphia: Lea and Febiger, 1986: 9-29.
3. Rutstein D D, Mullan R J, Frazier T M et al. Sentinel health events (occupational): a basis for physician recognition and public health surveillance. *Am J Public Health* 1983; 73: 1054-1062.

Primula dermatitis: prevalence, detection and outcome

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Key words: primula; allergic contact dermatitis; patch testing.

A reluctance by florists to stock *Primula obconica* may have led to a decline in the prevalence of primula dermatitis on the continent of Europe (1). However, no such reticence appeared to affect seed distributors in the UK (2). We have analysed our recent

patch test results to examine the present status of primula sensitivity in the London area.

Since 1985, synthetic primin (TROLAB) 0.01% pet. has been the standard allergen in our patch test series for the detection of primula sensitivity. For