

Biopsy of the positive open test to white glue at D4 showed spongiosis and perivascular lymphocytes with eosinophils. Total IgE was 64.7 IU/ml.

Discussion

Isothiazolinones, n-methylol-chloroacetamide and chloroacetamide are biocides used in industrial and cosmetic products. Allergic contact dermatitis due to cosmetics, toiletries and domestic cleaners, containing these biocides, and less frequently occupational allergic contact dermatitis, has been reported (1–10). Our patient was sensitized to the preservative of the white glue that he sometimes used in his workplace. The preservative was a mixture of N-methylol-chloroacetamide and chloromethylisothiazolinone/methylisothiazolinone.

N-methylol-chloroacetamide is the result of the reaction of 2-chloroacetamide with formaldehyde. Our patient was sensitized to chloroacetamide and also to formaldehyde. Farli et al. (9) reported a patient working in a factory producing modelling plasticine, who was sensitized to chloroacetamide and to a preservative containing n-methylolchloroacetamide and isothiazolinones used during production, but who was not sensitized to the isothiazolinones. Our patient also had urticarial lesions, although the open test to the white glue at 30 min was negative. Gebhardt et al. (11) reported urticaria caused by Type-IV sensitization to isothiazolinones.

Allergy to vinyl gloves is rare (12): it did not prove possible to patch test with their constituents.

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Chloroacetamide as a cause of contact dermatitis in hairdressing

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Key words: allergic contact dermatitis; chloroacetamide; hairdressing; hairdressers' clients; preservatives. © Munksgaard, 1999.

Chloroacetamide is a familiar sensitizer in paints, other sources being cosmetic creams and lotions, in which it is extensively used as preservative.

Case Report

A 58-year-old woman presented with a history of suspected contact dermatitis from hair dyes, 2× complaining of erythema, pruritus and scaling on the neck after hair dyeing. She was patch tested with a hair-

References

- Freeman S. Allergic contact dermatitis due to 1,2-benzisothiazolin-3-one in gum arabic. *Contact Dermatitis* 1984; 11: 146–149.
- Cronin E, Hannuksela M, Lachapelle J-M, Maibach H I, Malten K, Meneghini C L. Frequency of sensitisation to the preservative Kathon CG. *Contact Dermatitis* 1988; 18: 274–279.
- O'Driscoll J B, Beck M H. Occupational allergic contact dermatitis from Kathon® WT. *Contact Dermatitis* 1988; 19: 63.
- Rycroft R J G, Neild V S. Allergic contact dermatitis from MCI/MI biocide in a printer. *Contact Dermatitis* 1992; 26: 142.
- Damstra R J, Van Vloten W A, Van Ginkel C J W. Allergic contact dermatitis from the preservative 1,2-benzisothiazolin-3-one (1,2-BIT, Proxel®): a case report, its prevalence in those occupationally at risk and in the general dermatological population, and its relationship to allergy to its analogue Kathon CG®. *Contact Dermatitis* 1992; 27: 105–109.
- Sanz-Gallén P, Planas J, Martínez P, Giménez-Arnau J M. Allergic contact dermatitis due to 1,2-benzisothiazolin-3-one in paint manufacture. *Contact Dermatitis* 1992; 27: 271–271.
- Oleaga J M, Aguirre A, Landa N, González M, Diaz-Pérez J L. Allergic contact dermatitis from Kathon 893. *Contact Dermatitis* 1992; 27: 345–346.
- Toren K, Brisman J, Meding B. Sensitization and exposure to methylisothiazolinones (Kathon) in the pulp and paper industry – a report of 2 cases. *Am J Ind Med* 1997; 31: 551–553.
- Farli M, Ginanneschi M, Francalanci S, Martinelli C, Sertoli A. Occupational contact dermatitis to N-methylol-chloroacetamide. *Contact Dermatitis* 1987; 17: 182–184.
- Jones S K, Kennedy C T C. Chloracetamide as an allergen in the paint industry. *Contact Dermatitis* 1988; 18: 304–305.
- Gebhardt M, Looks A, Hipler U C. Urticaria caused by Type-IV sensitization to isothiazolinones. *Contact Dermatitis* 1997; 36: 314.
- Estlander T, Jolanki R, Kanerva L. Dermatitis and urticaria from rubber and plastic gloves. *Contact Dermatitis* 1986; 14: 20–25.

dressers' screening series and a preservatives series (Trolab). A ++ reaction was noted at D2 and D4 to chloroacetamide and also to propyl gallate. Chloroacetamide was confirmed to be the causative agent, as it was found to be included in the oxidant compound.

Discussion

Chloroacetamide is a cause of occupational dermatitis in paints (1, 2). It is also used as a preservative in cosmetics

and medicaments, from which sensitization is also described in spite of its low concentrations (3, 4). Hairdressers' screening series mainly include hair dyes and permanent waving chemicals (5–8), the same series being proposed for hairdressers' clients (9). However, preservatives, including chloroacetamide, were positive in more than 5% of patients tested in a recent report on occupational allergies in hairdressers (10). Screening series may need to be extended for hairdressers and their clients.

References

1. Finkbeiner H, Kleinhans D. Airborne allergic contact dermatitis caused by preservatives in home-decorating paints. *Contact Dermatitis* 1994; 31: 275–277.
2. Jones S K, Kennedy C T C. Chloroacetamide as an allergen in the painting industry. *Contact Dermatitis* 1998; 18: 304–305.
3. Doms-Gossens A, Degreef H, Vanhee J, Kerkhofs L, Chrispeels T. Chlorocresol and chloroacetamide: allergens in

- medications, glues and cosmetics. *Contact Dermatitis* 1981; 7: 51–52.
4. Wantke F, Demmer C M, Götz M, Jarisch R. Sensitization to chloroacetamide. *Contact Dermatitis* 1993; 29: 213–214.
5. Frosch P, Burrows D, Camarasa J G et al. Allergic reactions to a hairdressers series: results from 9 European centres. *Contact Dermatitis* 1993; 28: 180–183.
6. Shah M, Lewis M, Gawkrödger J. Occupational dermatitis in hairdressers. *Contact Dermatitis* 1996; 35: 364–365.
7. Fisher A A, Adams R M. Occupational dermatitis. In: Fisher A A (eds): *Contact dermatitis*. Philadelphia: Lea and Febiger, 1986: 486–514.
8. Van der Walle H B, Brunsveld V M. Dermatitis in hairdressers (1), the experience of the past 4 years. *Contact Dermatitis* 1994; 30: 217–221.
9. Guerra L, Bardazzi F, Tosti A. Contact dermatitis in hairdressers' clients. *Contact Dermatitis* 1992; 26: 108–111.
10. Leino T, Estlander T, Kanerva L. Occupational allergic dermatoses in hairdressers. *Contact Dermatitis* 1998; 38: 166–167.

Patch testing in contact cheilitis

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Key words: patch testing; allergic contact cheilitis; cosmetics; propyl gallate; octyl gallate; thimerosal; mercury; sorbitan monooleate. © Munksgaard, 1999.

Contact cheilitis is an inflammatory reaction of the lips and adjoining skin to irritants or sensitizing agents and has been reported with application of various cosmetics, such as lipsticks (1, 2), dentrifices (3), toothpastes (4, 5) and mouthwashes (3).

Patients and Methods

8 patients (2 male, 6 female) with a mean age of 25 years presented with dryness, scaling and a burning sensation over the lips. Duration of symptoms ranged from 1 week to 3 months. All used cosmetics. 1 was a dental nurse who came into contact with dentrifices. All were patch tested with a cosmetics series. 1 patient, who had had dental replacement 3 years back, was patch tested with an extended European standard series and metals (mercury, silver and copper).

Standard allergens from Chemotechnique Diagnostics

AB, Sweden, and Van der Bend square chambers, were used for patch testing. Readings were taken on D2 and 3. Reactions were scored according to the recommendations of the ICDRG.

Results

Table 1 summarizes the details of patients and results.

Discussion

Propyl and octyl gallates (antioxidants), thimerosal (preservative) and sorbitan monooleate (emulsifier in cosmetics) and mercury were the allergens identified. Patients with negative patch tests had a history of atopy. 33.3% had endogenous cheilitis in a study conducted in Singapore (6).

References

1. Cronin E. *Contact dermatitis*. Edinburgh, Churchill Livingstone, 1980: 141.
2. Calnan C D, Sarkany. I. Studies in contact dermatitis (II). Lipstick cheilitis. *Trans Rep St. John's Hosp Dermatol Soc* (London) 1957; 39: 28–36.
3. Fisher A A. *Contact dermatitis*, 2nd edition. Philadelphia: Lea and Febiger, 1973: 320.
4. Trevison G, Kokelj F. Contact dermatitis from propolis; role of gastro-intestinal absorption. *Contact Dermatitis* 1987; 16: 48.
5. Young E. Contact dermatitis from sensitivity to propolis. *Contact Dermatitis* 1987; 16: 49.
6. Lim J T E, Ng S K, Goh C L. Contact cheilitis in Singapore. *Contact Dermatitis* 1992; 27: 263–264.

Table 1. Patch test results

Patient no.	Age (years)	Sex	Occupation	Atopy	Allergen detected by patch testing
1	25	F	nurse	no	propyl gallate octyl gallate
2	27	F	dental nurse	yes	thimerosal
3	37	F	physiotherapist	no	sorbitan monooleate
4	23	F	physiotherapist	yes	—
5	19	F	housewife	yes	—
6	25	F	housewife	no	mercury
7	27	M	medical student	no	thimerosal
8	40	M	farmer	no	mercury