

In none of these cases was an attempt made to identify the actual contact allergens or elicitors involved in florists' chrysanthemum/*Tanacetum parthenium* allergy. This would of course be desirable since chemical races within *T. parthenium* are known to exist: European plant material containing principally parthenolide, and North American material containing santamarin, reynosin, and chrysartemins A & B (5).

Nevertheless, if a standardised and universally applicable means of diagnosing chrysanthemum allergy is to be sought, then *Tanacetum parthenium* should prove itself to be suitable for the purpose. Moreover, if specially grown for this purpose, it would overcome the theoretical risk of false positive reactions from the pesticide residues that are so often evident on the leaves of florists' chrysanthemums obtained from commercial sources.

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Immediate hypersensitivity to mustard and rape

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Key words: Immediate hypersensitivity - mustard - rape - isothiocyanate

Anaphylactic shock from mustard in pizza has been described previously (1).

A 40-year-old woman, working as a cook, had a vesicular hand eczema of pompholyx type for 9 years. She had no history of atopy. Patch testing with the ICDRG standard series showed only a positive reaction to wool alcohols 30% w/v. Her eczema varied in intensity. She sometimes developed profuse vesicular lesions in a few hours, mostly for no known reason. She had noted that she experienced vesicular episodes every time after eating food containing mustard. The symptoms started within 1-2 h.

Prick tests were performed with prepared mustard (Slots senap®), crushed seeds of black and white mustard and water extracts of the seeds. All were positive with a marked wheal reaction. No reactions were obtained when mustard was applied as a 20 min closed test on healthy and eczematous skin.

There are 2 kinds of mustard; black and white, from *Brassica nigra* and *Sinapis alba*, respectively. Mustard powder is often a mixture of the two. When seeds of mustard are crushed with water, a volatile aromatic oil is formed, allylisothiocyanate.

Closed patch tests for 20 min and prick tests with allylisothiocyanate, phenylisothiocyanate and benzylisothiocyanate were performed with 4 different concentrations, 0.1-0.0001% w/v. No positive reactions were obtained.

The mustard plant belongs to the Cruciferae family. Many of the plants in this family yield large amounts of isothiocyanates derived from thioglucosides by the action of the enzyme myrosinase (2).

The patient was prick tested with some plants, including rape, cabbage, cauliflower, radish, horse radish, Swedish turnip and Brussels sprouts, and alcoholic extracts of them. A positive reaction was

found to crushed seeds of rape, *Brassica napus*, but none to the others. No reaction was obtained on prick testing with sodium chloride solution, 0.9% w/v. Prick testing with seeds of black and white mustard and rape in 10 control persons was negative.

The patient now avoids eating mustard and food-stuffs made from rape, for example vegetable oils and margarine. Some improvement has been achieved, but the eczema has not totally disappeared.

This case suggests that immediate hypersensitivity

to an ingested allergen may play a rôle in the development of vesicular hand eczema.

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Occupational contact dermatitis from nonylphenolpolyglycoether

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Key words: Contact dermatitis – emulsifier – nonylphenolpolyglycoether – crack-indication.

A 64-year-old man had worked in the metal industry all his life without any skin symptoms. 3 years ago he developed dermatitis on his hands and forearms. It always cleared during vacation but relapsed when he returned to work. Sometimes he had very acute exacerbations on the hands.

Among his recent tasks was crack-indication. To perform this, metal objects were immersed in a fluid

containing Fe_2O_3 powder coated with a fluorescent dye in a magnetic field. Cracks could then be visualised with ultraviolet light. The composition of the crack-indicating fluid is shown in Table 1.

Patch testing with the ICDRG standard series and some oil ingredients was negative. When testing with the crack-indicating fluid, positive reactions were obtained (Table 2). Tests with each ingredient separately revealed positive reactions to the emulsifier, nonylphenolpolyglycoether (Fig. 1).

Nonylphenolpolyglycoether is commonly used in household detergents for washing dishes and clothes. The patient related the eczema on his forearms to the use of protective clothing at work. It was not possible to find out which detergent was used for washing his clothes.

The patient is now retired, and his dermatitis healed. He has, however, had a few relapses after contact with detergents, for instance when washing his car.

Contact allergy to non-ionic surfactants is unusual. Only 1 case of nonylphenolpolyglycoether (nonylphenol ethoxylate) has been reported (1). We

Table 1. Composition of crack-indicating fluid

Fe_2O_3 coated with pigment
high-molecular amines
oleyl-cetyl alcohol
nonylphenolpolyglycoether
water

Table 2. Patch test results

crack-indicating fluid as is	+++
crack-indicating fluid 50% w/v, water	++
Fe_2O_3 coated with pigment 2% w/v, water	–
high-molecular amines 1.5% w/v, water	–
oleyl-cetyl alcohol 10% w/v, water	–
nonylphenolpolyglycoether 5% w/v, water	++
nonylphenolpolyglycoether 1% w/v, water	++
nonylphenolpolyglycoether 0.1% w/v, water	+
nonylphenolpolyglycoether 0.01% w/v, water	+
nonylphenolpolyglycoether 0.001% w/v, water	+

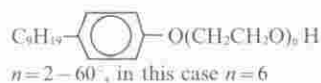


Fig. 1. Chemical structure of nonylphenolpolyglycoether (=nonylphenol ethoxylate)

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