

Contact urticaria from lupin

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Lupin is a member of the pea family (Leguminosae), cultivated all over the world and frequently consumed: sweet lupin protein or flour has been used in bread, cookies, and milk substitutes.

Case Report

A 25-year-old man, with a history of seasonal rhinitis and positive prick tests to grass mix, *Olea europaea*, and *Chenopodium album* pollens, showed symptoms of urticaria when kissing his girlfriend, who had previously eaten lupin seeds. Erythema and severe itching with progressive onset of wheals, restricted to the contact area, were reported. He was able to touch dried and fresh lupin without any ill effects. In recent years, he had experienced mild pruritus of the oral mucosa after eating lupin.

Total serum IgE was 890 KU/l (Pharmacia Immuno-cap System, Upsala, Sweden). Open and closed patch tests with fresh and dried lupin were negative, on both normal and previously affected skin. A prick-by-prick test (1) with wet lupin on normal skin gave a large itchy wheal (8 mm diameter) within 15 min. Specific IgE to lupin was 10.7 KU/l (Pharmacia CAP System, Upsala, Sweden). Prick-by-prick tests on healthy volunteers and 10 atopic patients without a history of lupin hypersensitivity were negative.

Comment

Hefle et al. (2) reported a case of generalized urticaria and angioedema after ingestion of pasta fortified with sweet lupin seed flour. To our knowledge, there are no previous reports of contact urticaria from *Lupinus albus* (3, 4). Clinical symptoms were shown only on direct or indirect contact with the chewed seeds. A prick-by-prick test with wet lupin was useful in diagnosis, as with other vegetables antigens (5).

References

1. Deborg S, Foucard T. Allergy to apple, carrot and potato in children with birch pollen allergy. *Allergy* 1983; 38: 167-172.
2. Hefle S L, Lemanske R F, Bush R K. Adverse reaction to lupine-fortified pasta. *J Allergy Clin Immunol* 1994; 94: 167-172.
3. Cronin E. Dermatitis in food handlers. *Adv Dermatol* 1980; 4: 113-124.
4. Hannuksela M, Lahti A. Immediate reactions to fruits and vegetables. *Contact Dermatitis* 1977; 3: 79-84.
5. Delgado J, Castillo R, Quiralte J, Blanco C, Carrillo T. Contact urticaria in a child from raw potato. *Contact Dermatitis* 1996; 35: 179-180.

Double use tests for latex allergy

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Case Report

A 28-year-old obstetrics and gynecology resident presented with a 10-month history of urticarial eruptions on the hands that developed within 1 to 2 h of wearing rubber gloves. She had no systemic symptoms. She was in good health and had no history of atopy. Physical examination revealed excoriated dermatitis on both hands.

Lack of standardized test material has led to the use of "home-made" test allergens for prick testing (1-3). Turjanmaa (1) recommends that a prick test allergen can be made from gloves as follows: 1 g of small pieces of a patient's suspected glove is incubated in 5 ml of normal saline (1:5 w/V) taken from a container with no contact with rubber. We incubated them for 30 min (3). Histamine phosphate (Histatrol®) 2.75 mg/ml in glycerin 50% vol/vol (Center Laboratories, Port Washington, New

York, USA) and normal saline were used as positive and negative controls, respectively. The patient showed positive reactions to glove extract (glove extract=5.25 mm, histamine=3 mm, NSS=0 mm).

A wear or use test was carried out with fingers cut from the suspected gloves and applied to a dampened finger of the patient (1-3). There was no reaction at 30 min. When the 1-finger test result was negative, the entire glove was donned for 30 min. The patient showed urticarial eruptions on the hand.

A double use test was performed by putting latex gloves over polyethylene gloves on a dampened hand for 30 min. There was no reaction, implying a practical solution.

The patient was patch tested using the European standard series. She had a positive patch test result to nickel, which probably related to jewelry.

Discussion

Natural rubber latex (NRL) protein sensitivity is a crucial and frequent problem, especially in healthcare workers (4). If there is a risk of anaphylaxis, a RAST may be performed before skin testing (4). Resuscitation equipment that contains no NRL compounds should always be available in the event of anaphylaxis. In this report, the allergy was proven by prick and use tests. Vinyl gloves are safe for individuals sensitive to rubber,

but such gloves may fatigue easily, developing cracks or holes that may admit the AIDS virus. When greater protection against contagious agents is required, latex gloves are preferable (1). Double gloves may be used. Non-rubber gloves are not available in Thailand (except thin polyethylene gloves). Because our patient showed no reaction on the double use test, we suggested that she use double gloves. She has used them for 5 months without any problems. Therefore, double use tests may be performed as a guideline for patients, though, since patients with contact urticaria from rubber gloves may develop conjunctivitis, asthma and even anaphylaxis, such a strategy cannot be recommended universally, and requires careful monitoring if employed.

References

1. Turjanmaa K. Update on occupational natural rubber latex allergy. *Dermatol Clin* 1994; 12: 561-567.
2. Taylor J S, Praditsuwan P. Latex allergy. *Arch Dermatol* 1996; 132: 265-271.
3. Hamann C P, Kick S A. Diagnosis-driven management of natural rubber latex glove sensitivity. In: Maibach H I, Mullstrom G, Wahlberg J E (eds): *Protective gloves for occupational use*. Boca Raton: CRC Press Inc, 1994: 131-156.
4. Tanglertsampan C, Maibach H I. Contact urticaria. In: Hogan D J (ed): *Occupational skin disorders*. Tokyo: Igaku-Shoin, 1994: 81-88.

Allergic contact dermatitis from 2,7-dihydroxynaphthalene in hair dye

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Key words: hair dye; permanent dye; scalp dermatitis; 2,7-dihydroxynaphthalene; naphthalenes; allergic contact dermatitis; cosmetics; hairdressers' clients. © Munksgaard, 1997.

Case Report

A 46-year-old female shop cashier developed an exceptionally severe skin eruption on her scalp, face, upper chest and upper extremities. She needed oral corticosteroids and a 1-month sick leave. The cause remained unknown. Her skin eruption relapsed 2 months later, after her hair had been dyed, and she was referred to a

dermatologist for patch testing. The TRUE Test™ (Pharmacia) standard series was negative. We then obtained from the manufacturer 22 constituents of the hair dye, and further patch testing was performed. 2,7-dihydroxynaphthalene

Table 1. Primary intermediates of hair dyes based on diamines or aminophenols

(a) <i>diamines</i>
2,5-diaminotoluene
2-chloro-p-phenylenediamine
N,N-bis(2-hydroxyethyl)-p-phenylenediamine
(b) <i>aminophenols</i>
n-methyl-p-aminophenol

Table 2. Couplers used in hair dyes

resorcinol
chlororesorcinol
2-methylresorcinol
naphthol
1,5-dihydroxynaphthalene
1,7-dihydroxynaphthalene
2,7-dihydroxynaphthalene
m-aminophenol
4-methyl-5-aminophenol
o-aminophenol
m-phenylenediamine
4-methyl-5-(2-hydroxyethyl)aminophenol

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