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Table 1. Results of allergenic test

| Test procedure        | Substance                                                 | Test reaction |
|-----------------------|-----------------------------------------------------------|---------------|
| Prick test            | Pine nuts (native)                                        | ++            |
|                       | Birch pollen                                              | ++            |
|                       | <i>Dermatophagoides farinae</i>                           | ++            |
| Oral provocation test | Pine nuts (several, i.e., one teaspoonful)                | Positive      |
|                       | Tartrazine 100 mg                                         | Negative      |
|                       | 3,4-Dihydroxy-cinnamic acid (caffeic acid) 100 mg         | Negative      |
|                       | 2-Hydroxy-cinnamic acid ( <i>p</i> -coumaric acid) 100 mg | Negative      |
|                       | 4-Hydroxy-3-methoxy-cinnamic acid (ferulic acid) 100 mg   | Negative      |
|                       | Na-salicylate 500 mg                                      | Negative      |
|                       | ( <i>R</i> )- <i>p</i> -hydroxybenzoate (pHB) 500 mg      | Negative      |
|                       | Na-benzoate 500 mg                                        | Negative      |
|                       | Sorbic acid 500 mg                                        | Negative      |
|                       | Na-metabisulfite (cumulative 310 mg)                      | Negative      |

## Anaphylaxis to pine nuts

YUNGINGER et al. (1) report on seven instances of anaphylaxis induced by food in patients between the ages of 11 and 43 years, all atopic, with some multiple anaphylactic episodes, after eating the suspected food (peanuts, four patients; fish, one patient; crab, one patient; pecan nuts, one patient). We describe a strange case of anaphylaxis induced by pine nuts in a patient with atopic inhalation diathesis.

In September 1995, after a meal of spaghetti and pesto sauce (olive oil, herbs, pine nuts, sardines), a 53-year-old man experienced angioedema, acute

dyspnea, and circulatory collapse for the first time. The patient was treated with intravenous injection of antihistamine as well as glucocorticoid. He was referred to us for identification of the allergen

*A severe reaction in an atopic, 53-year-old man with birch-pollen allergy.*

responsible for the anaphylactic reaction.

Skin prick tests were performed with seasonal and perennial inhalation allergens (Bencard Allergy Service, Munich, Germany) and native material of the suspected food. The implementation and evaluation of the prick tests were carried out in line with the guidelines of the EAACI (2). For birch pollen and house-dust mite (*Dermatophagoides farinae*), a positive test reaction was discovered twice, and rhinoconjunctivitis allergica saisonalis et perennialis was thus identified. There was a negative reaction to olive oil, tuna fish,

pistachios, basil, marjoram, oregano, black pepper, sardines, and various shellfish in the prick test, whereas the pine nuts were double positive.

Oral provocation tests were conducted with food colorings, antioxidants, and preservatives, which did not produce a reaction (Table 1). Finally, the patient was exposed to pine nuts: 10 min after being given a teaspoonful of pine nuts, the patient reacted with marked conjunctival inflammation, periorbital reddening, and itching. After he was given 4 mg Fenistil® (Dimetindenmaleat) and 200 mg Urbason® (methylprednisolone) intravenously, there was a reversal of symptoms. Serologic analysis for specific IgE antibodies (CAP, RAST FEIA, Pharmacia Company, Freiburg, Germany) was found to be strongly positive (class 4) for pine nuts.

Pine nuts are used in bread, pastries, and Italian-style meals. The kernels released from the hard shell can be consumed as a valuable nutrient, containing approx. 39% protein and 50% fat.

Halsey et al. (3) report on type I allergy to sunflower seeds. Immediate-type allergies to pine nuts are very rare. Only one case of systemic reaction to pine nuts was presented by Nielsen (4). On one occasion in September 1995, our patient suffered angioedema, acute dyspnea, and circulatory collapse, after consumption of spaghetti and pesto sauce (olive oil, herbs, pine nuts, sardines). On the basis of patient's history, RAST, skin test, and exposure, we were able to prove type I allergy to pine nuts, which caused the anaphylactic reaction.

Key words: anaphylaxis; food allergy; pine nuts.

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## Airborne contact dermatitis to latex

A 27-YEAR-OLD woman presented a 3-month history of dermatitis mainly on the face and neck and slightly on the forearms. Those areas showed cracking, crusting, and desquamation, and she observed that they got better during work-free days. She had worked for 1½ years in a laboratory developing vaccines for viral illnesses in fowls; specifically, she prepared culture media. During this work, she came into contact with several potentially allergenic substances such as yeast extract, casein, amino acids, and ampicillin. All the staff wore powdered latex gloves, which were changed several times a day.

The patient was known to suffer from perennial allergic rhinitis and had a history of asthma. A 10-day work-free period caused complete clearing of her dermatitis and confirmed that it was work-related. Laboratory examinations showed an increased serum total IgE level of 771 IU/ml, positive skin prick tests to house-dust mites and grasses, and a positive specific IgE (Alastat) to latex of 3.99 IU/ml. A patch test performed with a standard panel of the 24 most common contact allergens showed a strong positive reaction to both thiuram and carbamate mixes. When all the staff started to wear nonlatex vinyl gloves only, her disorder disappeared. At present, she continues to do the same tasks as before with no recurrence of her dermatitis. Still, if she works in another room where staff wear ordinary latex gloves, her skin reacts again several hours later.

Contact dermatitis is caused by the direct contact of allergens with the skin, resulting in a delayed, type IV reaction. A similar reaction can sometimes be triggered by allergens present in the air (1) which come into contact with exposed areas of the body, especially the face and neck.

Latex allergy can present as typical contact dermatitis, which is particularly due to gloves, in which case it is thought that the reaction is due to

chemical additives, such as thiurams and carbamates, present in the processed rubber, and is not due to latex itself (2-3). Latex particles in the environment elicit an immediate, type I reaction consisting of rhinoconjunctivitis, asthma, urticaria, and even anaphylaxis due to anti-latex protein IgE antibodies.

This case presents several unusual aspects worth taking into consideration. Even though the patient proved allergic to thiuram and carbamate mixes,

*A woman with dry, lichenified dermatitis of the face was diagnosed as allergic to airborne latex without reaction to gloves.*

her hands were free of disease. One can speculate that her gloves actually protected her from contact with airborne latex particles. Her rhinitis did not worsen while she worked in the laboratory although she was latex-IgE positive.

Finally, her skin reaction disappeared when the gloves were changed, proving that all other potential allergens were irrelevant.

The mechanism responsible for her dermatitis is not clear-cut, and we may be in the presence of combined immediate and delayed hypersensitivity (4). Latex should be included in the growing list of airborne contact allergens (5-6).

Key words: airborne; contact; dermatitis; latex.

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