

2. Van Thiel PH, Kuipers FC, Roskam RTH. A nematode parasitic to herring causing acute abdominal syndromes in man. *Trop Geogr Med* 1960;2:97-113.
3. Ikeda K, Kumashiro R, Kifune T. Nine cases of acute gastric anisakiasis. *Gastrointest Endosc* 1989;35:304-8.
4. Kim LS, Lee YH, Kim S, Park HR, Cho SY. A case of anisakiasis causing intestinal obstruction. *Kisaengchunghak Chapchi* 1991;29:93-6.
5. Petithory JC, Rousseau M, Siodlak F. Données séroépidémiologiques sur l'anisakiase: conséquences prophylactiques pour les produits de la pêche. *Bull Acad Natl Med* 1991;175:273-9.
6. Kasuya S, Hamano H, Izumi S. Mackerel-induced urticaria and Anisakis [Letter]. *Lancet* 1990;335:665.
7. Desowitz RS, Raybourne RB, Ishikura H, Kliks MM. The radioallergosorbent test (RAST) for the serological diagnosis of human anisakiasis. *Trans R Soc Trop Med Hyg* 1985;79:256-9.
8. Christie JF, Dumbiar B, Kennedy MW. The ABA-1 allergen of the nematode *Ascaris suum*: epitope stability, mass spectrometry, and N-terminal sequence comparison with its homologue in *Toxocara canis*. *Clin Exp Allergy* 1993;92:125-32.
9. Kennedy MW, Tierney J, Puzeng Y, et al. The secreted and somatic antigens of the third stage larva of *Anisakis simplex*, and antigenic relationship with *Ascaris suum*, *Ascaris lumbricoides* and *Toxocara canis*. *Mol Biochem Parasitol* 1988;31:35-46.

Generalized urticaria caused by sesame seeds with negative prick test results and without demonstrable specific IgE antibodies

Bernadette Eberlein-König, MD, Franziska Rueff, MD, and
Bernhard Przybilla, MD *Munich, Germany*

Investigation of patients with suspected food allergy comprises a clinical history, skin tests, and determination of specific IgE antibodies to food. However, a definite diagnosis can only be established by adequately performed oral challenge tests with the suspected allergens.¹ This is demonstrated by the case of a patient with generalized urticaria provoked by sesame seeds in whom no evidence of an IgE-mediated mechanism could be found.

CASE REPORT

A 58-year-old man reported that he had facial erythema and swelling, generalized wheals, and itching all over the body about 30 minutes after he had eaten a slice of crisp bread with sesame seeds and one small salami sausage in June 1993. About 2 months later, a similar reaction occurred after ingestion of a buttered slice of bread containing sesame seeds. On both occasions the patient had been successfully treated with clemastine intravenously. The patient was otherwise healthy and did not take any medi-

cations. He had no personal history of hay fever, asthma, or atopic eczema.

Skin prick tests, performed in October 1993 with a standard series of common aeroallergens and food allergens (including sesame), yielded a 1+ reaction to *Dermatophagoides pteronyssinus* and baker's yeast. Crushed sesame seeds were tested after suspension in a drop of physiologic saline solution by means of the prick test technique without a positive result.

Intracutaneous skin tests with a standard series of foods yielded a 3+ reaction to malt, 2+ reactions to baker's yeast and shredded wheat, and 1+ reactions to garlic, cocoa, and orange. A commercial intracutaneous skin test solution for sesame seeds was not available in Germany.

Specific IgE antibodies could not be detected against shredded sesame (tested twice), wheat flour, rye flour, barley flour, oatmeal, malt, buckwheat flour, or baker's yeast (Pharmacia CAP system; Pharmacia, Uppsala, Sweden).

Oral challenge tests were performed in the hospital under careful control. Challenges were performed with 200 mg, 1 gm, and 2 gm of sesame seeds (each 30 minutes apart). Twenty-five minutes after ingestion of 2 gm of sesame seeds, the patient experienced flushing of the head, generalized itching, and whealing. The eruption cleared rapidly after intravenous administration of 2 mg of clemastine and 200 mg of prednisolone.

Additional challenges were performed with 600 mg, 3 gm, and 6 gm of shredded wheat; with one tenth, one half, and one whole small salami sausage (as ingested by the patient before the previous reaction); and with

From Dermatologische Klinik und Poliklinik (Direktor: Prof. Dr. G. Plewig) der Ludwig-Maximilians-Universität, Munich. Reprint requests: Bernadette Eberlein-König, MD, Dermatologische Klinik und Poliklinik der Ludwig-Maximilians-Universität München, Frauenlobstr. 9-11, 80337 München, Germany.

J ALLERGY CLIN IMMUNOL 1995;96:560-1.

Copyright © 1995 by Mosby-Year Book, Inc.

0091-6749/95 \$5.00 + 0 1/54/65256

1.2 ml, 6 ml and 12 ml of barley malt extract (1-hour intervals between challenges). No reactions were observed. Six days after the oral challenge with sesame seeds, the test was repeated after the patient had taken 200 mg of sodium cromoglycate 90 and 180 minutes before he ingested 1 and 2 gm of sesame seeds, respectively. No clinically apparent symptoms occurred, and he only felt "shivering" 2 hours after the last ingestion of sesame seeds.

DISCUSSION

Sesame seeds and sesame oil are traditional food ingredients in the Orient, in China, in Japan, or in Mexico. Their use has increasingly spread also to the United States and to Europe during recent decades. Ingestion of sesame seeds and sesame oil has been reported as the cause of immediate-type hypersensitivity.²⁻⁴ The clinical picture includes oral pruritus; angioedema of the lips, tongue, and uvula; generalized erythema or urticaria; rhinitis, respiratory distress, asthma, nausea, vomiting, weakness, or hypotension. In 19 of 26 cases reported in the literature a skin test was done. Seventeen of these 19 patients showed a scratch, prick, or intracutaneous test reaction to sesame. The skin tests were usually done with self-made sesame seed extracts. In the two patients with negative skin test responses, specific IgE antibodies could be demonstrated in the serum. Altogether, sesame-specific serum IgE was demonstrable in 15 of 18 patients evaluated in this manner.²⁻⁴

Our case demonstrates that a clinically manifest sesame seed hypersensitivity can exist without a positive skin test response or demonstrable specific IgE antibodies in the serum. Oral challenge was definitely necessary for a diagnosis of food hypersensitivity.¹ With regard to the mechanism of the hypersensitivity reaction in our patient, one can

speculate that the reaction was not IgE-mediated or that epitopes recognized by IgE antibodies were not present in the skin test solution or in the allergens used in the CAP system because they might have developed as a result of digestion.

The only available therapy for food hypersensitivity is avoidance. With regard to sesame seeds, this is easy if seeds are visible on the food (e.g., bread, pretzels) or if the patient is aware of the food groups that frequently contain sesame seeds (most likely oriental specialties, ready-made foods, crackers, chips). However, sometimes (e.g., when dining at a restaurant) definite information on the composition of food is not available. Oral sodium cromoglycate has been reported to be effective in suppressing urticaria and angioedema in some patients with food allergies, and it also protected our patient. The patient was instructed to avoid sesame and to take sodium cromoglycate 1 to 2 hours before eating any food that could not be checked for the presence of sesame. Also, he was supplied with emergency medications to be used in the case of a reaction after an unintentional ingestion of sesame seeds.

REFERENCES

1. Sampson H. Immunologically mediated food allergy: the importance of food challenge procedures. *Ann Allergy* 1988;60: 263-9.
2. James C, Williams-Akita A, Rao YAK, Charmonte LT, Scheider AT. Sesame seed anaphylaxis. *NY State J Med* 1991;91: 457-8.
3. Vocks E, Borga A, Szliska HU, Seifert B, Burow G, Borelli S. Common allergenic structures in hazelnut, rye grain, sesame seeds, kiwi, and poppy seeds. *Allergy* 1993;48:168-72.
4. Kägi MK, Wüthrich B. Falafel burger anaphylaxis due to sesame seed allergy. *Ann Allergy* 1993;71:127-9.

Cockroaches and mites share the same beds

J. Birnbaum,^a J. P. Orlando,^b D. Charpin,^a and D. Vervloet^a *Marseille and Aubagne, France*

Recent studies suggest that sensitization to cockroach allergens is common in urban areas and highlight the importance of cockroach allergens as

a risk factor for asthma in cockroach-infested houses. In Marseilles, France, we evaluated the importance of cockroach allergens relative to other major aeroallergens in the general population.¹

From ^aAllergy Division, Department of Chest Diseases, Hôpital Sainte-Marguerite, Marseille; and ^bHôpital d'Aubagne.

Reprint requests: J. Birnbaum, Allergy Division, Department of Chest Diseases, Hôpital Sainte-Marguerite, 13277 Marseille Cedex 9, France.

J ALLERGY CLIN IMMUNOL 1995;96:561-2.

Copyright © 1995 by Mosby-Year Book, Inc.

0091-6749/95 \$5.00 + 0 1/54/65318