

Immediate and delayed hypersensitivity reactions to food and latex in a chef

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Case Report

A 31-year-old female chef presented with a 12-month history of eczema of both hands. She described aggravation of eczema on preparing food, and she felt that handling certain foods, such as fish, made her condition worse. She had a history of allergic rhinitis and asthma in keeping with the diagnosis of atopy introduced by Coca in 1923 (1). Wearing rubber gloves occasionally caused itch. A finger and glove test to a latex glove was negative. Patch testing to the British standard series and cosmetics series revealed positive reactions to abietic acid, colophony, thiuram mix and carba mix. She was also patch-tested to 1% diallyl disulfide and developed a ++ reaction to this. Prick testing to commonly handled foods and latex revealed strongly positive reactions to fish mix, garlic and latex, and weaker positive reactions to egg, banana and chestnuts. IgE was elevated at 183 kU/l (range 2–100 kU/l). RAST testing revealed positive antibodies to fish mix and latex.

Discussion

Contact urticaria may be non-immune or immune due to IgE antibodies against protein peptides (2). The commonest cause of contact urticaria are foodstuffs, which can provoke orolaryngeal symptoms from ingestion or hand symptoms, such as immediate itching and subsequent eczema in food handlers (3), such as chefs.

Latex allergy has become a major health issue. Many of the allergenic peptides in natural rubber latex cross-react with those found in banana (4) and chestnuts (5). This cross-sensitivity was evident in the above patient. Anaphylaxis to latex is particularly prevalent when challenge is via mucosal surfaces.

Garlic has long been recognized as an occupational hazard among chefs. It is most commonly associated with delayed (Type IV) allergic reactions. Few reports exist of garlic as a cause of an immediate (Type I) hypersensitivity reaction (6–8). One case of anaphylaxis has been reported after ingestion of young garlic (unripe garlic plant whose bulb is not completely developed) (9).

Immediate hypersensitivity reactions to foods handled in chefs are not uncommon and contribute to the cause of occupational eczema. This chef only recognized a reaction to fish and the other reactions were unmasked on testing, although in retrospect she was aware that gloves made her itch. Once she avoided garlic, fish and wore vinyl gloves instead of rubber gloves, she noted an improvement in hand eczema. Immediate hypersensitivity testing for latex allergy and other relevant allergens in occupations at risk such as health care workers, hairdressers and food handlers is appropriate. A history of exposure to relevant allergens in other situations may also indicate a need for immediate hypersensitivity testing. Unless immediate hypersensitivity testing is carried out, relevant allergens may be missed.

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