Practical management of IgE-Mediated food allergy

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ABSTRACT

Food allergy is defined as an adverse immunologic response to a food protein. It is more common in paediatric age group. The increasing prevalence of food allergy is currently being observed worldwide and has significant medical, financial, and social impacts on young children and their families. Although the exact mechanisms responsible for the rise in food allergy are not fully understood, recent findings suggest three main hypotheses for the increase: the hygiene hypothesis, dual allergen exposure hypothesis, and vitamin D hypothesis. Food allergy is categorised into those mediated by IgE antibodies and by non-IgE-mediated mechanisms. IgE-mediated food allergy is the most widely recognised form of food allergy and is characterised by the rapid onset of symptoms, usually within 2 hours after ingestion of or exposure to the trigger. More than 90% of allergic reactions in children are related to eight food allergens, namely cow's milk, eggs, wheat, soy, peanuts, tree nuts, fish, and shellfish. Symptoms of allergic reactions to food may involve the skin, gastrointestinal and respiratory tracts, and cardiovascular system. Anaphylaxis, the most severe form, and life-threatening allergic reaction is a leading cause of death in children with IgE-mediated food allergy. Therefore, referral to an allergist for timely and appropriate diagnosis and treatment is imperative. Diagnosis of food allergy requires a detailed clinical history regarding diet and food exposure, diagnostic tests, such as skin prick tests or serum food-specific IgE and, if indicated, an oral food challenge. Children can have allergic sensitisation without having clinical symptoms. A diagnosis of an IgE-mediated food allergy requires both the presence of sensitisation to and development of specific signs and symptoms on food exposure. Once the diagnosis of food allergy is confirmed, strict elimination of the offending food allergen from the diet is indicated, as well as timely treatment of allergic reactions and good control of atopic co-morbidities to minimise complications. In addition, dietetic and psychological support is also recommended. Oral immunotherapy can potentially be disease-modifying and require further research. In general, this presentation focuses on the epidemiology, pathophysiology, diagnosis, and management of IgE-mediated food allergy, offering advice on how clinicians can avoid common pitfalls and improve patient care.