

Food allergy, unmet educational needs and the future of oral immunotherapy

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This issue of JFA covers topics which range from mechanisms of food allergy to educational needs of clinicians and bridges to the future of oral immunotherapy (OIT).

Pozin et al¹ aimed to characterize food-specific antibody responses, and compare responses to different foods in children with food allergy, natural tolerance, and controls. Serum specific IgA (sIgA), sIgG4, and sIgE were measured to whole peanut, egg white, and wheat. Subjects with peanut allergy alone had higher levels of egg and wheat sIgE compared to control subjects and comparable egg sIgE levels to children with egg allergy. In contrast, subjects with egg allergy did not demonstrate elevated peanut or wheat sIgE. These novel findings suggest that IgE production is dysregulated to “bystander foods” (egg and wheat) in patients with peanut allergy, but not in patients with egg allergy, suggesting that the mechanisms driving more persistent forms of food allergy (peanut) may be distinct from more transient food allergy (egg).

To explore educational gaps in breastfeeding concepts as they relate to food allergy, DiGiacomo et al² tested pediatric residents' knowledge and practice regarding breastfeeding, maternal diet, and potential allergic outcomes by performing an online questionnaire before and after an online educational module about evidence-based breastfeeding and infant food allergy guidelines. The authors found that pediatric residents reported low comfort and perceived that they have little knowledge about maternal diet and infant food allergy, yet their actual performance suggested the opposite. Those who completed the educational module did not demonstrate knowledge improvement, highlighting the need for development of more robust educational resources.

Kaman and Leeds³ present a case report of an 8-month-old breastfed female with a history of moderate eczema and egg allergy which illustrates the impact of food matrices on egg allergenicity. The infant was able to tolerate baked egg muffins without banana, but experienced a significant allergic reaction to baked egg muffins with banana, suggesting a potential disruption of the egg-wheat matrix by the introduction of banana. This report emphasizes the need to investigate the role that food matrices play on the allergenicity of foods and to make patients aware of the importance of adhering to allergist-prescribed recipes to prevent allergic reactions.

For many food allergy sufferers, OIT holds promise as a treatment option that can potentially improve their quality of life beyond the current standard of care which is based on allergen avoidance, emergency preparedness with prescribed epinephrine, and emergency medical care for acute reactions. To help fill the educational needs of clinicians, a comprehensive review article was recently published which provides a summary of the recent guidelines and a consensus of practical experiences of clinicians across the United States and Canada related to patient selection, office and staff preparation, the general OIT process, OIT-related reaction management, and treatment outcomes.⁴ To further build on this report, JFA is currently working with clinicians across the United States and Canada to create a practical “OIT Manual” focusing on the implementation of OIT in clinical practice. On behalf of the editorial board, it is our hope that the articles found within the current issue and in future issues will help foster enhanced patient management and outcomes.

Russell A. Settignano, M.D.

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