

Management of food allergy and species-related exposure on asthma

This issue of *Pediatric Allergy and Immunology* has a strong focus on food allergy, and the review article by Krogulska and Wood which opens the issue also addresses this topic.¹ These authors provide a thorough overview on the diagnosis of peanut allergies, focusing on in vitro methods including component-resolved diagnosis, but also on food challenges, as well as on other diagnostic tests. In addition, they discuss how the interpretation of IgE testing of various major allergens may change according to the geographic location. This aspect is often under-estimated and may significantly influence the diagnosis. At the end of the review, a very useful diagnostic algorithm may be of great help to the reader. Besides, a recent report published in PAI on how binding of specific IgE to major peanut allergens varies after oral immunotherapy (OIT) may complement the information given in the above-cited review.²



João Cavaleiro Rufo

The first study I would like to attract your attention to is a report by João Cavaleiro Rufo and colleagues from Portugal.³ This group of investigators took advantage of a database evaluating habitat diversity for amphibians, birds, reptiles, and small mammals in the city of Porto, and matched these data to the development of allergic diseases and asthma in children attending various primary schools. The study results showed a significant association between the exposure to species richness in schools and the lung function parameters both before and after bronchodilation, independently of the asthma and atopic status. They conclude that species richness in school surroundings may impact lung function development in children. They also point out that this increase in lung function was not associated with any clinically relevant protective effect on allergy and asthma development. Asthma development in relation to the environment is a key issue in allergy and asthma prevention, which might largely influence the long-term prognosis of asthma-affected children.^{4,5} PAI has recently reported other studies in relation to the topic. These showed that the farming environment and pollution may influence allergy development⁶ and that environmental metabolites detected in the urine may relate to asthma development in early childhood.^{7,8}



Vianney Gruzelle

The second study highlighted in this issue reports on low-dose milk tolerance induction reported by Vianney Gruzelle and colleagues from Southern France.⁹ Milk immunotherapy is time-consuming and may be hampered by the tolerance to regular consumption of plain milk. This group of authors provided their patients with an consumption plan of widely consumed cookies ("Petits Beurre") containing baked milk in low amounts. This low-dose OIT was continued for one year in total, followed by a food challenge to plain milk, with close to half of the patients tolerating over 200 mL of milk at the follow-up milk challenge. It was also reported that patients with lower specific IgE to milk at diagnosis have a higher chance of being desensitized at the end of OIT. A report of low-dose OIT to wheat in this same issue nicely builds on this interesting topic.¹⁰ In addition to these two reports, the reader will find recent studies in PAI on the long-term outcome of milk OIT,¹¹ as well as on low-dose OIT for peanut¹² and egg.¹³



Claudia Polloni

The third study highlighted here reports on another very important aspect of the management of food allergy, which is the training of school staff to take care of children with food allergies. Claudia Polloni and colleagues have measured the change of school staff's efficacy in managing food allergy and anaphylaxis at school after a multidisciplinary training course.¹⁴ The 2-hour course was given by an allergist and a psychologist and was also involving a lawyer. They informed on various clinical aspects of allergic reactions to foods, including their management, and also included regulatory and psychosocial aspects related to these situations. Scores from School Personnel Self-Efficacy-Food Allergy and Anaphylaxis Questionnaires gathered before and after the course showed the improvement in managing food allergy and anaphylaxis by teachers and school caretakers. Correct management and

perception of food allergy in the community are most important also to avoid false perception of the disease, which can potentially result in bullying of affected children.¹⁵ Also, gaps in anaphylaxis management in the school setting have been reported by others.^{16,17} Initiatives for better education of caregivers may be very structured as presented in the highlighted article; nevertheless, social media may also provide helpful information.¹⁸

The editorial team of PAI hopes that the articles commented on above and the other contributions within this issue will contribute to your scientific and clinical interest in pediatric allergy and clinical immunology.

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