

Comments on pollen season changes, vegetable consumption and asthma, and exercise-induced reactions after oral immunotherapy to foods

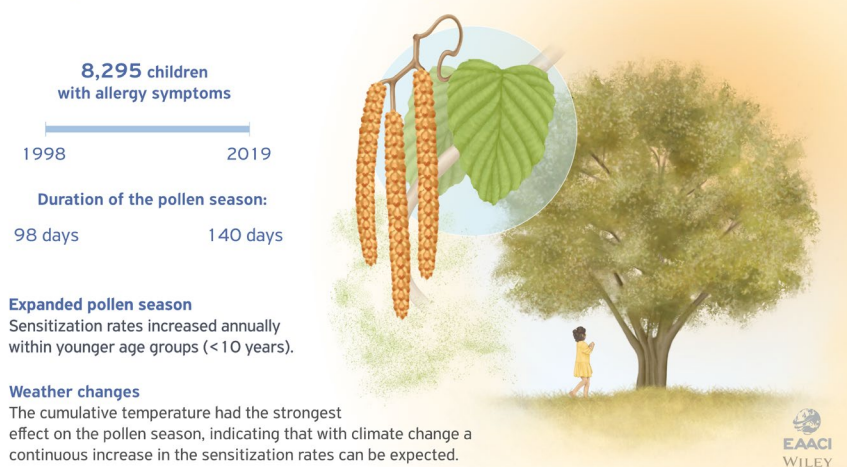
This issue of PAI begins with a fine set of review articles and an EAACI position paper. The first review addresses eosinophilic gastrointestinal disorders, as an adverse consequence of oral induction of tolerance (OIT).¹ The authors comment well on current knowledge and the link between eosinophilic gastrointestinal disorders and OIT, with a focus on recent evidence and controversies. A common problem seen in clinic by pediatric allergists is the child who presents with a rash during antibiotic treatment. The second review discusses on two possible diagnoses (drug hypersensitivity vs viral exanthema) and proposes a clinical approach for differential diagnosis and management of rashes in children while receiving an antibiotic.² The following rostrum proposes an analytical framework to determine the plausibility of viral transmission by breastmilk based on the principle of Koch's postulate.³ And last but not least in this first part of the issue, you will find the much-awaited guideline revision on the prevention of food allergy.⁴ The readers may also refer to the previously published method, and systematic review leading to the guidelines.^{5,6}



Kyung Suk Lee

The first study looked at in this editorial is by Kyung Suk Lee et al.,⁷ a Korean group of investigators who looked at changes in pollination rates in association with weather changes, and the sensitization rate to tree pollens in children living in Seoul. They analyzed data from 8,295 children with symptoms of allergy between January 1, 1998, and December 31, 2019. Clinical data were correlated with pollen counts and meteorological data. The pollen-sensitization rates increased annually within younger age groups. In addition, the authors could observe an increase in the duration of the tree pollen season from 98 days in 1998 to 140 days in 2019. Positive correlations were found between the duration of the pollen season and the rates of sensitization to tree pollens, as well as between the pollen-sensitization rates and a temperature increase. The authors were suggesting a clear link between these findings and a global weather change. The impact of global warming, air pollution, and allergies and asthma has been previously described in PAI.^{8,9} Pollens are worldwide triggers for respiratory allergies¹⁰; nevertheless, one should consider that local regional characteristics might largely influence the impact of pollens on allergies and asthma.^{11,12}

Increased sensitization rates to tree pollens in allergic children and adolescents and a change in the pollen season in metropolitan Seoul





Francisca de Castro
Mendes

As oxidative stress and inflammation might positively be influenced by a diet rich in fruits and vegetables, Francisca de Castro Mendes et al¹³ wanted to investigate a possible association in school-aged children in Porto, Portugal. Their study, the second article highlighted in this editorial, included 647 children who were asked for their fruit and vegetable intake, as well as for self-reported medical diagnosis of asthma and respiratory symptoms. In addition, airway inflammation was assessed by measuring exhaled nitric oxide concentration (eNO). The authors found that a higher vegetable diversity consumption was negatively associated with having self-reported asthma and breathing difficulties, as well as with lower levels of eNO. These results are in line with earlier studies published in PAI showing that nutrition patterns have a definite influence on allergic diseases.¹⁴⁻¹⁷

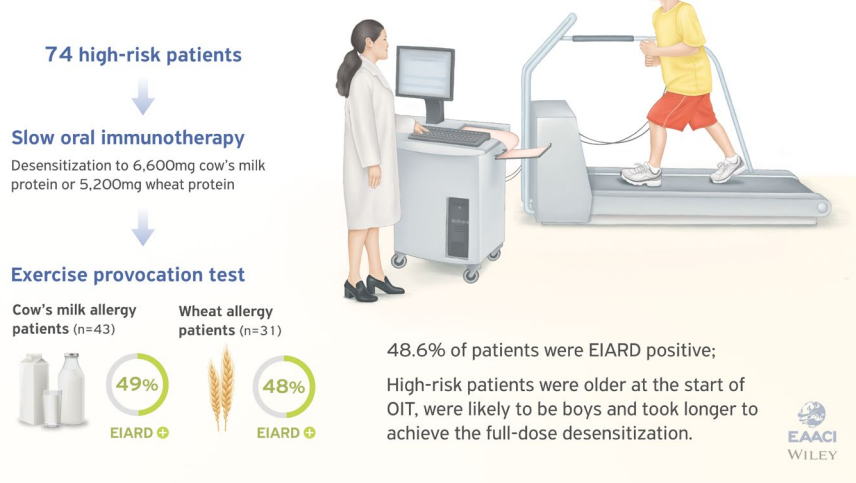
Higher diversity of vegetable consumption is associated with less airway inflammation and prevalence of asthma in school-aged children



Shohei Kubota

Oral Immunotherapy in patients with food allergy is a much discussed procedure, in particular with regard to adverse reactions, or possible allergic reactions after completion of the procedure. Shohei Kubota et al had previously described patients developing exercise-induced allergic reactions (EIARD) after rush desensitization to wheat.¹⁸ Here, they reviewed charts of patients who underwent slow OIT to milk or wheat for EIARD up to completion of the maximum desensitization dose.¹⁹ The milk or wheat oral food challenges were positive after an exercise provocation test in 49% (21/43) of patients challenged to milk, and in 48% (15/31) challenged to wheat. These results clearly show that these patients only achieved a partial tolerance after OIT and that they needed to show caution when they were exposed to a potential co-factor. Interestingly, milk was as prevalent as wheat as the offending food. The limits of OIT have been extensively discussed earlier²⁰; nevertheless, OIT in wheat allergy is a procedure worthwhile to be considered, however, by bearing in mind possible adverse reactions even after completion of the procedure.²¹⁻²³

Exercise-induced allergic reactions after achievement of desensitization to cow's milk and wheat



Last but not least, you will find the announcement of the recipients of the 2021 PAI reviewers' award. Among many other excellent reviewers, the four reviewers chosen this year have performed a high number of reviews, with excellent quality and a rapid turnover. They deserve the warmest thanks from the editorial team of PAI. As an additional information, we will not publish anymore the full list of last year's reviewer (due to new privacy rules). Instead, reviewers will receive a certificate from our publisher thanking them for their review. We wish to express our deepest gratitude to all reviewers for their commitment to PAI. They are an essential part of the success of the journal!

Philippe Eigenmann

Department of Women-Children-Teenagers, University Hospital of Geneva, Geneva, Switzerland

Email: philippe.eigenmann@hcuge.ch

ORCID

Philippe Eigenmann <https://orcid.org/0000-0003-1738-1826>

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