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EDITORIAL

WILEY

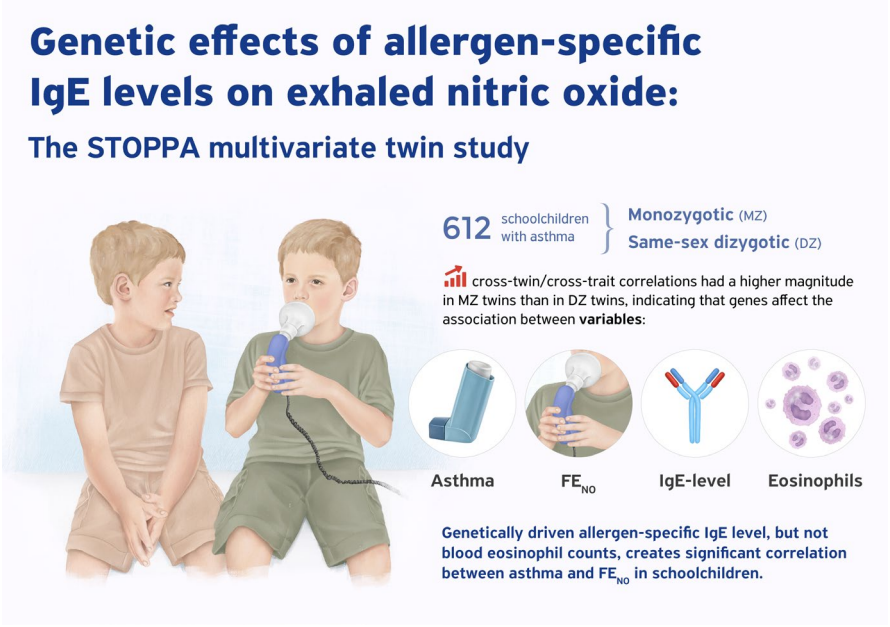
Comments on nitric oxide in children with asthma, low-dose oral immunotherapy for cow's milk allergy, and SARS-Cov-2 testing in school children

PAI regularly publishes reviews to update you on major topics. This issue features a first review article on pediatric rhinitis by Papadopoulos and colleagues, followed by an update on food allergy written by current and past associate editors.[1,2] Both teams have made an extensive literature search of recent studies highlighting new findings and their application in the clinical practice. We not only hope they will be helpful for your continuous education, but also suggest citing them when writing the introductory section of your articles, as they extensively summarize current knowledge.

The first selected research article in this issue reports on the STOPPA trial, a study aiming at characterizing nitric oxide production in asthmatic children in relation to environmental and genetic factors.[3] The authors led by Anna Hedman used an original approach by recruiting a large sample of monozygotic and dizygotic twin pairs, looking into blood test results such as eosinophils and IgE levels in relation to genetic factors. They found that more than half of the total covariance between nitric oxide levels and asthma was due to genetically driven effects of the specific IgE levels, but not the blood eosinophils. They conclude by highlighting the clinical heterogeneity of exhaled nitric oxide levels in relation to specific IgE levels in asthmatic children.

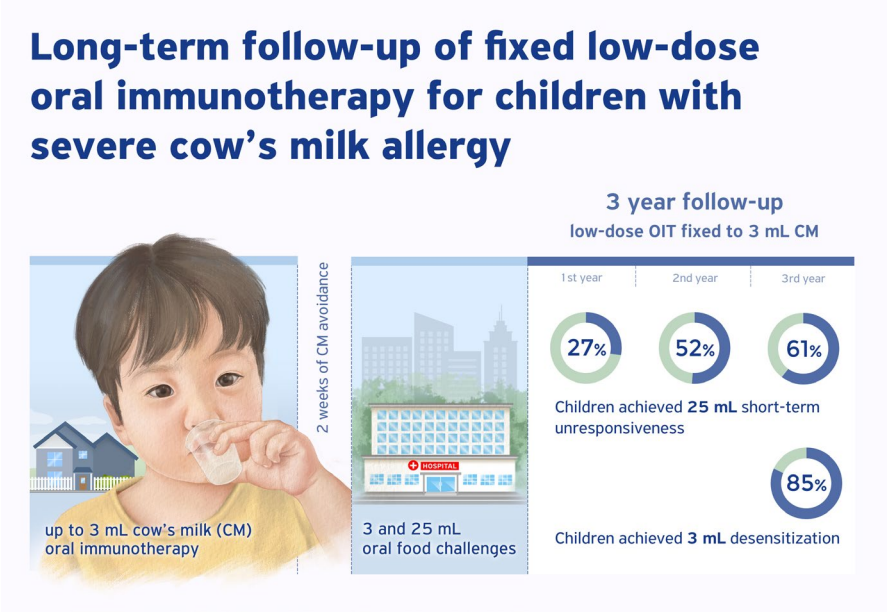
Anna Hedman

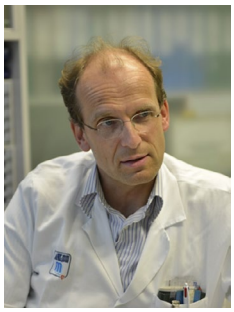
Asthma is a major focus of PAI, and recent studies of interest to the readers have reported on the clinical follow-up in children suffering from asthma.[4-6] The influence of the environment, even when considering seemingly unrelated variables such as diet and air pollution, has been closely studied.[7] The articles commented on here shed new light into the interaction between well-known inflammatory and sensitization markers present in asthmatic children.[8,9]



Yoko Miura

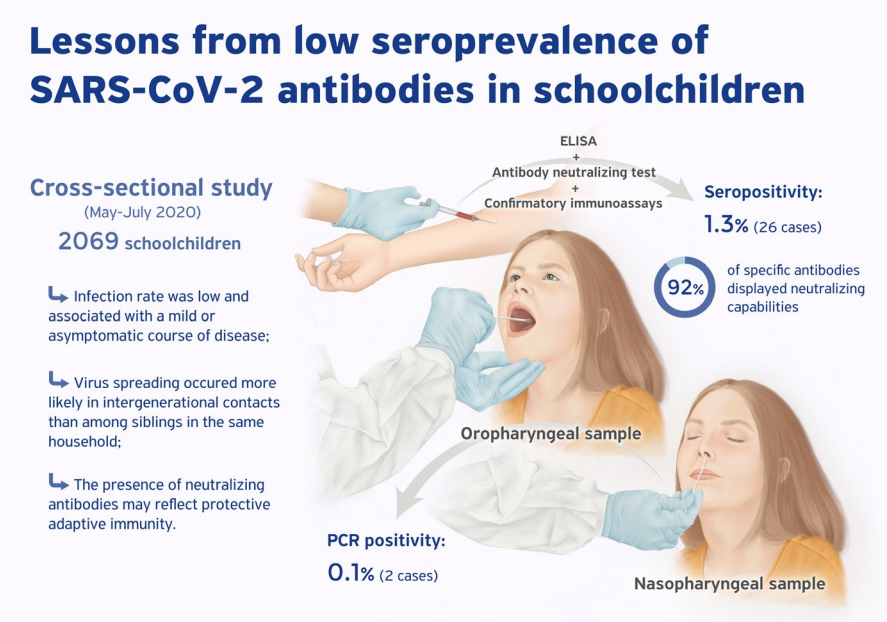
Oral immunotherapy (OIT) in order to favor desensitization in children with cow's milk allergy has also been frequently studied, leading to numerous publications including many in this journal.[10-12] This procedure is of particular interest in children with potentially severe reactions.[13] In the second article featured in this editorial, Yoko Miura and colleagues have reported the outcome of a fixed, low-dose cow's milk immunotherapy.[14] Thirty-three children on 3 mL of cow's milk for 1-3 years were challenged with 3 mL and 25 mL of cow's milk after a 2-week OIT interruption. An increasing proportion of children were able to tolerate 25 mL of cow's milk after OIT (27% after 1 year, 52% after 2 years, and 61% after 3 years). In addition, the procedure was safe in most of these children with severe cow's milk allergy as moderate or severe reactions occurred after less than 1% of the 19 861 home ingestions. The authors describe a decrease in specific IgE and an increase in IgG4 levels, respectively, as also previously reported.[15] Taken together, this procedure is effective to induce a level of desensitization that largely protects most patients with persistent cow's milk allergy from severe reactions.





Zsolt Szepfalusi

While the epidemiology of the COVID-19 pandemic has been extensively studied and the disease characterized in the most affected age groups,[16,17] clinical manifestations in childhood have also been more recently assessed.[18,19] Nevertheless, many issues in children with or without pre-existing conditions remain only partially addressed.[20,21] Zsolt Szepfalusi et al publish results in this issue from a study aiming to assess the prevalence of SARS-CoV-2 antibodies and virus RNA in schoolchildren, consistent with previous infection by contact tracing.[22] Between May and July 2020, they recruited 2069 children in schools located in Vienna. Only 2 cases tested positive for SARS-CoV-2 RNA and 26 for specific antibodies. Antibody positivity was associated with displaying no (in 46.2%) or mild (in 53.8%) symptoms. Interestingly, among 13 seropositive children being tested concomitantly with their siblings, only one pair of siblings was positive. They conclude that virus spreading is only marginal among children and probably mostly occurring from adults to children. The presence of neutralizing antibodies in the study subjects might contribute to protection.



As usual, this is only a selection of articles of interest, the other original articles and letters published in this issue should raise your interest as well.

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