

EDITORIAL

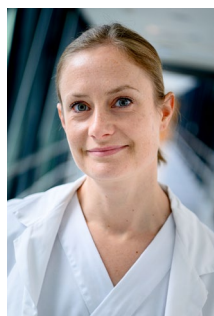
Early wheeze progression to asthma, and insight into peri-operative anaphylaxis

You have just started reading the first 2020 issue of *Pediatric Allergy and Immunology*, your journal devoted to research and education. The review articles of this month focus on atopic dermatitis (AD). Tham et al¹ have reviewed how an altered skin barrier, such as seen in children with AD, can influence early sensitization to foods. Sensitization will then result in an increase in food allergy (FA) in a subgroup of children, mostly those with moderate-to-severe AD. Children having AD skin flares in relation to FA have traditionally being kept strictly off foods. Nevertheless, this dogma might be questioned, in particular as oral tolerance induction protocols might also target these patients. A group of experts has recently reviewed the current literature and met for discussion. The resulting rostrum article published in this issue suggests various options for the management of children with AD suffering from FA, other than only strict food avoidance.²



Asuncion Mejias

The role of viruses, and in particular of respiratory syncytial virus (RSV) in asthma pathogenesis, is well known and has been addressed earlier in PAI.^{3,4} I would like to bring to your attention the first study by Mejias et al which analyzed a very large dataset from three US claims databases with the aim to address the association between RSV in full-term infants and recurrent wheezing in the first 5 years of life. Over 100 000 matched infant pairs could be analyzed showing that in the studied 16-year time interval, infants with RSV infection during the first year of life had a higher risk of developing recurrent wheezing during the first five years of life. Also, infants with RSV had both a shorter time to the first wheezing episode and a higher incidence of wheezing episodes up to 5 years of life. The strength of such studies is the extremely large datasets that give a very broad picture of potential risk factors for asthma in childhood. Obviously, such data are contingent on correct coding and adequate clinical data collection, as the primary aim of such databases is for administrative purposes and not for scientific research. Nevertheless, such data are most helpful to help design strategies for better prevention of a major burden in childhood.^{5,6}



Karen Sørensen

The second article which is featured in this editorial has been submitted initially as an abstract to the 2019 Pediatric Allergy and Anaphylaxis Meeting (PAAM) and has been selected by the abstract reviewers for a joint-to-the-meeting publication in PAI. With this new initiative, we want to favor rapid publication of the latest top research. Sørensen et al⁷ have hypothesized here that early-life bronchiolitis may not only favor early recurrent wheeze such as in the study discussed above, but also obstruction in adolescence, a period in life much less studied, but possibly of prime importance for later chronic obstruction. Children hospitalized for bronchiolitis in two Norwegian hospitals were included in a longitudinal follow-up study and tested at 11 and 18 years of age with spirometry and methacholine provocation test. They found that lung function was lower and bronchial hyperresponsiveness was higher in the group who suffered from bronchiolitis in infancy when compared to age-matched healthy controls, both at 11 and at 18 years of age. In addition, their results showed no difference between 11 and 18 years, suggesting that obstruction installs early and does not progress in this time span. Studies on bronchial hyperresponsiveness have been reported earlier in PAI⁸ and so have been genetic variants on lung function,⁹ or various other factor influencing the trajectories of early wheezers,¹⁰⁻¹² to which the reader might refer too for more insight.



Ekaterina Khaleva

The third study highlighted in this editorial reports on a much less frequently reported topic, although not rare: peri-operative anaphylaxis. Indeed, reports on drug-induced allergic reactions in children are most often related to more common drugs such as non-steroidal anti-inflammatories (NSAIDs).^{13,14} Khaleva et al¹⁵ have collected data from children having presented peri-operative anaphylaxis in several hospitals in the United Kingdom, France, and the United States. Twenty-nine cases reported over ten years are analyzed in the study. In such cases, the investigations are made a second time by allergists who are most often lacking precise information on the event. The second major drawback is the lack of well-defined diagnostic tests, as they are most often not validated

with an appropriate gold standard. Anaphylaxis receives major attention in our clinical field, in particular when evaluating the risk of recurrences after severe events.¹⁶ Finally, the task force report on drug-induced anaphylaxis in childhood recently published in PAI will bring more insight into the correct care of such patients.¹⁷

Further stimulating reports in this issue deserve your attentive reading, and the editorial team hopes that you will enjoy this issue of PAI.

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