

Correspondence

Reply

To the Editor:

One of the most important findings of our Hen's Egg Allergy Prevention (HEAP) trial was that many infants with egg allergy were already sensitized and allergic to hen's egg at age 4 to 6 months¹—a finding that was in line with the results of other recently published intervention trials for the prevention of hen's egg allergy.²⁻⁴ Thus, a primary prevention strategy starting at age 4 to 6 months seems to be too late. Jiang et al⁵ have raised the interesting question whether regular egg intake can be a promising method to prevent egg allergy when given shortly after birth. There are not many data on earlier hen's egg introduction. The Enquiring About Tolerance (EAT) study from the United Kingdom investigated whether an earlier start of hen's egg introduction at age 3 months can be more successful than standard introduction.⁶ Unfortunately, the intention-to-treat analysis showed no statistically significant difference in hen's egg allergy between the early introduction compared with the standard introduction group.⁶ Most promising was the approach used in the Japanese PETIT study. The results suggest that hen's egg introduction at age 6 months could be successful to prevent hen's egg allergy in children with eczema if lower amounts of hen's egg protein in a less allergenic form are used. Interestingly, a high proportion of the infants were already sensitized to hen's egg at the start of the intervention.⁴ In this context, it is difficult to distinguish between a preventive effect of the early oral exposure to hen's egg protein and a therapeutic effect in terms of oral immunotherapy. Anyhow, the introduction of hen's egg protein in low amounts in a less allergenic form in high-risk infants who are already sensitized to hen's egg seems to be a promising strategy, considering that many infants are already allergic and sensitized at the age of 4 to 6 months when the introduction of solid foods usually commences. The proposal of Jiang et al, however, focuses on a very early start of oral exposure to hen's egg protein, namely, during the first weeks of life. When suggesting an oral hen's egg exposure in healthy newborns, extreme caution of harmful effects needs to be exercised. Unfortunately, we cannot lean on any information derived from observational data regarding the potential beneficial or harming effects of feeding hen's egg protein during the first weeks of life. For cow's milk protein, findings of an Israeli observational study published by Katz et al⁷ suggested a protective effect of early introduction during the first 2 weeks of life. In contrast, a Finish study indicated that the early feeding of cow's milk protein starting shortly after birth in the maternity hospitals increases the risk of cow's milk allergy.⁸ In regard to hen's egg, data from the intervention studies are raising some concerns regarding the safety of high amounts of hen's egg protein in young

infants. Both the EAT study and the HEAP study indicated that caution should be taken regarding the development of food protein-induced enterocolitis syndrome (FPIES) among the infants who are introduced early to high amounts of hen's egg protein: In the EAT study, there were 6 cases of reported FPIES-like reactions to hen's egg in the early introduction group compared with no cases in the standard introduction group (see the Appendix by Perkin et al,⁶ pages 57, 5). In the HEAP study, there was 1 infant with FPIES confirmed by double-blind, placebo-controlled food challenge in the verum group and 3 additional infants with parent-reported FPIES-like reactions.¹ The approach of a very early introduction of hen's egg protein during the first weeks of life proposed by Jiang et al⁵ might be an interesting primary preventive strategy because most children are already sensitized at 4 to 6 months; however, its potential risks should be carefully considered and investigated to the greatest possible extent before starting an interventional trial in healthy newborns.

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