against single allergens was detected in 22 samples. IgA was detected in 98% of the samples. None of the specific IgE found in cord blood was detected at 6 months of age. Cord blood IgE was not detected in any infants whose mothers were not sensitized, and the infants who did have cord blood IgE detected displayed a “fingerprint match” to maternal IgE. In every case, the IgE for a specific allergen detected in cord blood was the same as that detected in maternal blood, and it was present in a relatively similar concentration to that found in maternal blood. The cord blood IgA level also showed a linear relationship to the IgE level, suggesting that more maternal contamination resulted in higher IgE levels in cord blood.

CONCLUSIONS. IgE in cord blood does not reflect in utero sensitization but seems to reflect maternofetal transfer of IgE.

REVIEWER COMMENTS. The questions rarely change, but our answers often do. In recent years, the American Academy of Pediatrics recommended that some parents avoid certain foods during pregnancy to reduce the chance of their child developing atopic disease. These recommendations were based on studies that showed that the human fetus is capable of producing IgE as early as the 20th week of gestation and that cord blood IgE seemed to be a predictor of future atopy. Now the evidence seems to suggest that although sensitization could theoretically occur in utero, it simply does not. This study provides convincing evidence that the IgE in cord blood does not come from the infant but, rather, from the mixing of maternofetal blood, probably at the time of delivery. This study, along with other evidence that has come to light recently, raises questions about whether maternal dietary restriction of allergens during pregnancy impacts allergy outcomes to the avoided food/foods.

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Breast-feeding Duration and Infant Atopic Manifestations, by Maternal Allergic Status, in the First 2 Years of Life (KOALA Study)

PURPOSE OF THE STUDY. To investigate the potential effect of modification by maternal allergic status on the relationship between breastfeeding duration and infant atopic manifestations in the first 2 years of life.

STUDY POPULATION. Data from 2705 infants of the KOALA Birth Cohort Study (Netherlands) were analyzed.

METHODS. The data were collected by repeated questionnaires at 34 weeks’ gestation and 3, 7, 12, and 24 months postpartum. Total and specific immunoglobulin E measurements were taken on venous blood samples collected during home visits when the infants were 2 years of age. Relationships were analyzed by using logistic regression analysis.

RESULTS. Longer duration of breastfeeding was associated with a lower risk for eczema in infants of mothers without allergy or asthma (P_trend = .01) and slightly lower risk in those of mothers with allergy but no asthma (P_trend = .14). There was no such association for asthmatic mothers (P_trend = .87). Longer breastfeeding duration decreased the risk of recurrent wheeze independent of maternal allergy (P_trend = .02) or asthma (P_trend = .06) status.

CONCLUSIONS. The findings show that the relationship between breastfeeding and infant eczema in the first 2 years of life is modified by maternal allergic status. The protective effect of breastfeeding on recurrent wheeze may be associated with protection against respiratory infections.

REVIEWER COMMENTS. The role of diet in preventing and treating atopic disease has been and continues to be an active area of clinical research. Snijders et al found that a longer duration of breastfeeding was associated with a lower risk of eczema in infants of mothers without allergy or asthma. There was a slight effect in mothers with allergy but no asthma, yet no such relationship was observed for asthmatic mothers. It is interesting to note that no effect modification of maternal allergy/asthma on infant IgE or allergen sensitization was observed. Finally, longer breastfeeding reduced the risk of recurrent wheezing independent of maternal allergic or asthma status, which the authors speculated may be the effect of reduced numbers of respiratory infections. Overall, these findings do support the role of breastfeeding in prevention of atopy, and additional studies are needed to better define the influence of maternal and infant diets during this time frame.

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Effect of Prolonged and Exclusive Breast Feeding on Risk of Allergy and Asthma: Cluster Randomised Trial

PURPOSE OF THE STUDY. To evaluate if exclusive and prolonged breastfeeding reduces the risk of childhood asthma and allergy.
Breast-feeding Duration and Infant Atopic Manifestations, by Maternal Allergic Status, in the First 2 Years of Life (KOALA Study)
John M. James
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