Breastfeeding and Its Relationship to Childhood Respiratory Allergies and Allergic Asthma a Longitudinal Study (P11-104-19)

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Objectives: Breastfeeding might be associated with respiratory allergy and asthma subtypes(i.e., allergic asthma), but such relations have never been examined yet in the US. Therefore, the aims of the study were:

1. To examined the association between breastfeeding and respiratory allergy in children aged six years.
2. To examined the association between breastfeeding and asthma including asthma subtypes (allergic) in children aged six years

Our hypothesis was that exclusively breastfeeding for 3 months would reduce the risk of developing childhood respiratory allergy and allergic asthma.

Methods: A longitudinal study was used, utilizing data from mother-infant pairs that participated in the infant Feeding Practices Study-II(IFPS-II) and the Year-6-Follow-Up Study(Y6FU) in the United-States(US). The data included mother-reported breastfeeding practices in IFPS-II, childhood allergies in Y6FU, and covariates as demographic variables, siblings, wheezing, RSV, history of family allergies, maternal smoking status, and introduction to complementary foods. Multiple logistic regressions were used to examine the study aims.

Results: Overall, 1,177 questionnaires were completed in IFPS-II and Y6FU. Until 3 months, 35.9%(n = 423) of the children were exclusively breastfed, and 24.6%(n = 290) were exclusively formula-fed. Based on mothers' reports, 20.8%(n = 245) of the children had been diagnosed by a physician as having had a respiratory allergy, and 10.2% (n = 120)with asthma, and of these, 105 cases had allergic asthma(8.7%). The results of the multivariable analyses showed that children who were exclusively breastfed for 3 months were significantly less likely by 37% to have respiratory allergy(AOR = 0.63 CI 95%:0.42-0.93) compared with children who were exclusively formula fed for 3 months after adjusting for associated covariates. There were no significant differences in the odds of having asthma across the different feeding practices. Allergic asthma, however, was significantly associated with exclusive breastfeeding for 3 months (AOR = 0.54 CI 95%:0.30-0.96), after adjusting for associated covariates.

Conclusions: Exclusive breastfeeding for the first 3 months reduce the risk for respiratory allergies and allergic asthma in children.

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