

Cohort study

Breastfeeding is protective against early childhood asthma

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Commentary on: Silvers KM, Frampton CM, Wickens K, *et al.* New Zealand Asthma and Allergy Cohort Study Group. Breastfeeding protects against current asthma up to 6 years of age. *J Pediatr* 2012;160:991.e1–6.e1.

Context

Previous prospective cohort studies have observed protective effects of breastfeeding on respiratory illnesses in early childhood. Silvers and colleagues aimed at studying whether breastfeeding protects against current asthma and wheezing in older children up to the age of 6 years.

Methods

This prospective birth cohort study among 1105 children in New Zealand collected detailed information on exclusive breastfeeding (at an age when infant formula, food or other drinks, except water, were introduced) and any breastfeeding (at an age when breastfeeding was stopped) by way of questionnaires until the age of 15 months. Current asthma, including doctor's diagnosis of asthma, history of wheezing or medication use, and current wheezing in the last 12 months were annually obtained from the age of 2–6 years. Many potential confounders including atopy as a modifying factor were taken into account.

Findings

Adjusted logistic regression analyses showed that per month exclusive breastfeeding was associated with decreased risks of current asthma in children up to the age of 6 years (all *p* values <0.05), especially in atopic children. The degree of the protective effect of exclusive breastfeeding decreased from 17% to 9% from the age of 2 to 6 years. The protective effects of exclusive breastfeeding on current wheezing and any breastfeeding on current asthma or wheezing were less stronger and only lasted until the age of 3–4 years.

Commentary

The authors concluded that exclusive breastfeeding, in particular, continued to protect against asthma from the age of 2 to 6 years. The strengths of the study are its prospective design, detailed information on breastfeeding and a follow-up beyond the preschool age. Some

minor limitations include a lack of explanation as to why important confounders such as gestational age and crowding were not in the final model, and not taking repeatedly measured asthma within the same child into account. This might have led to biased effect estimates.

The results of this study are consistent with most of the earlier studies demonstrating that prolonged and exclusive breastfeeding are associated with a decreased risk of asthma symptoms in early childhood.^{1–2} Although this study observed a protective effect of breastfeeding on asthma at older ages, this effect declined with an increasing age. Previous studies examining the protective effect of breastfeeding on asthma at older ages showed conflicting results. Some studies observed that breastfeeding was associated with a decreased risk of asthma,^{3–4} and others did not,^{5–6} or saw even an increased risk of asthma in school-aged children and adulthood.^{7–8} Also, the increased protective effect of breastfeeding on asthma in atopic children remains debatable as earlier studies, including a recent meta-analysis, observed more or less protective effects of breastfeeding on asthma in school-aged atopic children or children with a family history of asthma.^{6–8} Inconsistent results of the long-term effect of breastfeeding on asthma at older ages might be explained by differences in the study design, method of data collection, definitions of breastfeeding, phenotypes of asthma with different underlying pathophysiological pathways including time-varying infectious or atopic mechanisms, and the existence of many potential confounders.

Asthma in childhood is a heterogeneous disease with a high prevalence and morbidity worldwide. The protective effect of breastfeeding on asthma from school-age onwards remains controversial, but is clear for asthma at younger ages. The current health policies should be supported to promote exclusive breastfeeding for a long duration.

Competing interests None.

References

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