Abstract

Breastfeeding and childhood asthma: systematic review and meta-analysis.

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Abstract

Asthma and wheezing disorders are common chronic health problems in childhood. Breastfeeding provides health benefits, but it is not known whether or how breastfeeding decreases the risk of developing asthma. We performed a systematic review and meta-analysis of studies published between 1983 and 2012 on breastfeeding and asthma in children from the general population. We searched the PubMed and Embase databases for cohort, cross-sectional, and case-control studies. We grouped the outcomes into asthma ever, recent asthma, or recent wheezing illness (recent asthma or recent wheeze). Using random-effects meta-analyses, we estimated pooled odds ratios of the association of breastfeeding with the risk for each of these outcomes. We performed meta-regression and stratified meta-analyses. We included 117 of 1,464 titles identified by our search. The pooled odds ratios were 0.78 (95% confidence interval: 0.74, 0.84) for 75 studies analyzing "asthma ever," 0.76 (95% confidence interval: 0.67, 0.86) for 46 studies analyzing "recent asthma," and 0.81 (95% confidence interval: 0.76, 0.87) for 94 studies analyzing recent wheezing illness. After stratification by age, the strong protective association found at ages 0-2 years diminished over time. We found no evidence for differences by study design or study quality or between studies in Western and non-Western countries. A positive association of breastfeeding with reduced asthma/wheezing is supported by the combined evidence of existing studies.

KEYWORDS: asthma; breastfeeding; child; review

Comment in

Dogaru et al. respond to "Does breastfeeding protect against 'asthma'?". [Am J Epidemiol. 2014]

Comment on

Invited commentary: Does breastfeeding protect against "asthma"? [Am J Epidemiol. 2014]

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