Results. Three hundred fifty-two (70.7%) of the 498 participants received 752 courses of oral antibiotics in their first year of life. These antibiotics were given for ear infections (62.1%), wheezing (21.4%), cough (19.0%), nasal congestion/discharge (3.9%), difficulty breathing (1%), and difficulty eating (0.7%). Ninety percent of the group were monitored up to age 5 years. Among the 448 children, 90 had at least 1 allergic disorder at age 5 years. Within the group that developed these disorders, 30 (33.3%) received no antibiotic, 17 (18.9%) received 1 course, and 43 (47.8%) received 2 or more courses of antibiotics in the first year of life. Antibiotic use was significantly associated with transient wheezing; however, the association became weaker after adjustments for other variables. Transient wheezing was significantly associated with low household income. There was no association between antibiotic use in the first year of life and asthma, allergic rhinitis, or eczema at age 5 years. Among the 448 children, 90 had at least 1 allergic disorder at age 5 years. Within the group that developed these disorders, 30 (33.3%) received no antibiotic, 17 (18.9%) received 1 course, and 43 (47.8%) received 2 or more courses of antibiotics in the first year of life.

Conclusions. In this prospective study of children from Boston, born to parents who had a history of allergy, there was no support for the theory that the use of antibiotics in early childhood is associated with the development of asthma or allergy at age 5 years.

Reviewer’s Comments. This is a negative study and frequently such studies only tell us what did not work. I do think that although this is a “negative” study, it is important, well-done, and makes a significant contribution. Recently, a hypothesis has been put forth that suggests that the increase in the prevalence of allergic diseases may be associated with reduced exposure to infections and perhaps the use or frequent use of antibiotics in young children. The implication was that an antibiotic permits the immature immune system to remain in the allergy favoring TH-2 mode. The authors of this article point out that antibiotic use was significantly associated with transient wheezing; however, the association became weaker after adjustments for other variables. Transient wheezing was significantly associated with low household income. There was no association between antibiotic use in the first year of life and asthma, allergic rhinitis, or eczema.

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NATURAL COURSE OF SENSITIZATION TO COW’S MILK AND HEN’S EGG IN CHILDHOOD ATOPIC DERMATITIS: THE ETAC STUDY GROUP


Purpose of the Study. To investigate the natural course of sensitization to egg and cow’s milk and its relationship to severity of atopic dermatitis (AD).

Study Population. Study subjects were 397 European children 12 to 24 months old with AD who had been randomized to the placebo group as part of the ETAC study, which is a study examining the effectiveness of treating at-risk atopic children with cetirizine (vs placebo) in preventing the development of asthma.

Methods. The children were examined for objective assessment of AD severity using the SCORing Atopic Dermatitis (SCORAD) system and they underwent testing for food sensitivity to egg and cow’s milk using specific immunoglobulin E (IgE) by radioallergosorbent test (RAST). SCORAD of <15 = mild AD, 15 to 40 = moderate AD, and >40 = severe AD. They had assessments at baseline, 3, 12, and 18 months. A total of 382 subjects completed the study.

Results. At baseline most of the children had mild to moderate AD; 50% were sensitive to egg and 36% were sensitive to cow’s milk. The proportion of children with allergic symptoms to egg and cow’s milk decreased significantly during follow-up. The main predictors are the symptoms experienced after egg ingestion, followed by the size of skin prick test. In addition, the specific egg-IgE antibody level is an important prognostic marker in children who only had cutaneous symptoms.
PREDICTION OF TOLERANCE ON THE BASIS OF QUANTIFICATION OF EGG WHITE-SPECIFIC IgE ANTIBODIES IN CHILDREN WITH EGG ALLERGY

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/content/112/Supplement_2/457.1.full.html