The Prevalence and Natural Course of Food Protein-Induced Enterocolitis Syndrome to Cow’s Milk: A Large-Scale, Prospective Population-Based Study


PURPOSE OF THE STUDY. To prospectively determine the prevalence, clinical characteristics, and natural history of food protein–induced enterocolitis (FPIES) in association with cow’s milk protein (CMP).

STUDY POPULATION. In this birth-cohort study, 13,019 newborns (98.4%) born over a 2-year period from June 2004 to June 2006 were enrolled.

METHODS. Information on reactions to CMP were obtained for all infants, and those with probable reactions were evaluated with skin-prick testing and oral challenge if clinically indicated. Criteria for CMP FPIES included onset at less than 9 months; vomiting, diarrhea, or both within 24 hours after the ingestion of milk in the absence of other immunoglobulin E (IgE)-mediated symptoms; and a positive challenge to milk that resulted in the symptoms listed above or removal of milk resulting in resolution of the symptoms.

RESULTS. The cumulative incidence of CMP FPIES was 0.34% (44 of 13,019). The most common symptoms were vomiting (100%), lethargy (77%), diarrhea (25%), pallor (14%), and bloody diarrhea (4.5%). All patients were diagnosed before the age of 6 months. Fifty percent of the cases resolved around the age of 1, and 90% resolved by age 3. Eight patients with FPIES had IgE-mediated milk allergy, and none had concomitant soy allergy.

CONCLUSIONS. The prevalence of FPIES is low but significant. Most patients with FPIES recover in early childhood. A significant proportion of CMP FPIES might convert to IgE-mediated milk allergy.

REVIEWER COMMENTS. This study is unique because of its large size and prospective design. It provides much needed information on the prevalence and natural history of CMP FPIES and highlights the possible overlap between FPIES, which is considered a non-IgE-mediated allergy, and IgE-mediated milk allergy. Soy might be a reasonable alternative to hypoallergenic formulas in infants with CMP FPIES, although previous US studies revealed a higher rate of soy reactivity among infants with CMP FPIES.

Can Early Introduction of Egg Prevent Egg Allergy in Infants? A Population-Based Study


PURPOSE OF THE STUDY. Earlier guidelines, in which delaying the introduction of potentially allergenic foods to infancy in an effort to prevent food allergy was recommended, were based on little evidence. These researchers sought to determine if the development of egg allergy by 12 months of age is associated with the age at which egg and solids are introduced and the duration of breastfeeding.

STUDY POPULATION. Subjects aged 11 to 15 months were recruited during immunization visits as part of the Australian HealthNuts study, which was a single-center, population-based, cross-sectional study of food allergy.

METHODS. During the clinic wait period after immunization, skin-prick tests for egg white, saline, and histamine were administered. Before the results were read, a questionnaire was administered to the parents regarding age of egg introduction. A second self-administered questionnaire collected information regarding duration of breastfeeding and age of solids introduction. Infants with positive skin-prick-test results to egg (wheat size ≥1 mm greater than negative saline control) were offered oral food challenges within the next 4 to 8 weeks. Infants with a history of reaction to egg in the previous month and/or a positive skin-prick-test result who were currently avoiding egg were considered egg allergic and excluded from oral food challenges.

RESULTS. Of 3,552 eligible infants, 2,589 (73%) were recruited. Results of egg skin-prick tests were positive for 448 infants, and 340 infants underwent an oral food challenge. Overall, 231 infants (8.9%) were determined to be egg-allergic. Egg introduction at 4 to 6 months was associated with a decreased risk of egg allergy, whereas egg introduction after 10 months was associated with an increased risk of egg allergy in both low- and high-risk infants. High-risk infants with a family history of allergy or a personal history of food allergy or eczema had a much higher risk of egg allergy (odds ratio [OR]: 6.7 [95% confidence interval (CI): 4.7–9.6]). Age of introduction of cooked egg (boiled, scrambled, fried, or poached) was significantly associated with egg allergy, whereas age of introduction of baked egg...
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