FOOD ALLERGY

PREDICTION OF TOLERANCE ON THE BASIS OF QUANTIFICATION OF EGG WHITE-SPECIFIC IgE ANTIBODIES IN CHILDREN WITH EGG ALLERGY


Purpose of the Study. Egg allergy is one of the most common food allergies in infants and young children. This study sought to determine the likelihood of outgrowing egg allergy in children younger than 2 years and to identify prognostic predictors of tolerance.

Study Population. Fifty-eight children under 2 years of age with egg allergy (mean age: 16 months; range: 11–24 months), including 50% with atopic dermatitis were investigated.

Methods. The children underwent a prospective evaluation with skin prick testing, measurement of egg-immunoglobulin E (IgE), total serum IgE, and open oral egg challenges under physician supervision every 6 months. Kaplan-Meier survival curves were used to calculate cumulative tolerance probability and the Cox proportional regression model was used to estimate the relative prognostic importance of the predictor variables.

Results. The median time from the appearance of the first symptoms to tolerance was 35 months. Cumulative tolerance probability was 16% at 12 months of follow-up, 28% at 24 months, 52% at 36 months, 57% at 48 months, and 66% at 60 months. Extracutaneous symptoms and large egg prick (mean wheal size: >6 mm) skin test were independent predictors of persistent egg allergy, whereas in children with exclusive cutaneous symptoms egg white-IgE level over 1.9 kIU/L was associated with persistent allergy.

Conclusions. Half of the children younger than 2 years of age with egg allergy will tolerate the food at 35 months of follow-up, and this proportion could be 66% after 5 years of 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.

Reviewer’s Comments. This study provides an insight into the natural history of egg allergy and identifies predictors of tolerance that are very important for counseling the patients and their families. Egg allergy appears to be more persistent than cow’s milk allergy because an estimated 75% of cow’s milk-allergic children achieve tolerance by 3 years of age. Children who experience only skin symptoms have a better prognosis than children with extracutaneous egg-induced anaphylaxis.

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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.

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