participants between the ages of 11 and 20. Negative SPTs at age 5 were consistent in 72% of participants at age 11 and 53% of participants at age 20. The sensitivity of SPT at age 5 and 11 in predicting allergic symptoms was 28% and 47%, respectively; thus, 72% of participants with allergic symptoms at age 11 were SPT negative at age 5. Except for atopic dermatitis, positive SPT at the age of 5 predicted allergic symptoms by age 11 with a specificity of 94% and by age 20 with a specificity of 91%. Of the participants who were symptom-free with positive SPT at age 5, 64% developed allergic symptoms by age 11. Of the patients with allergic symptoms at age 20, 77% had been SPT negative at age 5. Twelve of the 13 participants who were SPT positive but symptom-free at age 5 were evaluated at age 20. Five continued to be symptom free, and 7 of them had developed clinical symptoms.

CONCLUSIONS. Positive SPT at age 5 predicts positive SPT later in childhood and adolescence. Clinically, positive SPT predicts allergic symptoms, especially respiratory symptoms, but not atopic dermatitis. Individuals with negative SPT at age 5 may still develop clinical symptoms and positive SPT at a later age.

REVIEWER COMMENTS. It is unclear how many of the original 163 participants evaluated at age 5 were also evaluated at ages 11 and 20. This makes it difficult for the reader to evaluate the reported data during each age interval, and the reader must rely on the conclusions drawn by the authors. The food allergen sensitization data must be interpreted with caution. Although there is some description of the clinical histories of participants with positive SPT to foods, the study fails to break down the data for foods alone and does not disclose whether these participants were eating the foods. The conclusion that positive SPT predicts respiratory symptoms should not be extrapolated to include foods. SPT is useful in the evaluation of aeroallergen and food sensitivity but only when performed in conjunction with a thorough clinical history and physical examination. Screening SPT should not be performed and interpreted in isolation.

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Sharon Deol, MD
J. Andrew Bird, MD
Dallas, TX

Natural History of Allergic Sensitization in Infants With Early-Onset Atopic Dermatitis: Results From ORCA Study

PURPOSE OF THE STUDY. To describe the natural history of allergen sensitization in a cohort of infants with early-onset atopic dermatitis (AD) and to identify biomarkers predictive of development of sensitization to inhaled allergens.

STUDY POPULATION. This study included patients from the Observatory of Respiratory risks linked with Cutaneous Atoyp (ORCA) study, a 10-year, longitudinal, prospective study of children with AD referred by their primary care physician to a tertiary care center in Paris, France.

METHODS. Children included were younger than 12 months with active AD diagnosed by a dermatologist according to established criteria. Children with a history of wheezing were excluded. At baseline, AD severity was assessed by SCORAD (Scoring Atopic Dermatitis) questionnaire. Parents were asked about history of food allergies. Total and specific immunoglobulin E to inhaled (house dust mite [HDM], cat, dog, pollens [birch tree, timothy grass, mugwort], cockroach) and food (cow’s milk, hen’s egg, peanut, soy, fish, wheat) allergens as well as blood eosinophil counts were measured at study inclusion and then annually until age 6 years.

RESULTS. There were 229 patients included in baseline characteristics analysis, and 190 completed the study final visit. Participants were 58.5% male with mean age of 6.5 (± 2.7) months and mean SCORAD of 34.2 (± 21.0). Six percent of the subjects had a history of food allergy. At study inclusion, 58% were sensitized to food allergens, predominantly cow’s milk, hen’s egg, and peanut. Seventeen percent of subjects were sensitized to inhaled allergens, mostly cat (52%), HDM and dog (17%), and pollens (12%). By the end of the study period, sensitization to foods decreased to 34% of participants, whereas sensitization to inhaled allergens increased to 67% of participants, predominantly timothy grass pollen (30%), HDM (28%), and birch pollen (18%). Blood eosinophilia, AD severity, and history of food allergy were not associated with increased risk for developing inhaled allergen sensitization. Sensitization to food allergens at study inclusion, particularly multiple food sensitizations, was associated with the highest risk of developing inhaled allergen sensitization (odds ratio 4.32, 95% confidence interval 2.22–8.40; P < .001).

CONCLUSIONS. The authors concluded that in a specific population of children with early-onset AD, sensitization to food allergens was associated with increased risk of developing sensitization to inhaled allergens, with multiple food sensitizations conveying the highest risk.

REVIEWER COMMENTS. This study prospectively examined a group of highly selected infants with early-onset AD and provided valuable information about the natural history of allergen sensitization in these patients. Distinct phenotypes of allergic disease are beginning to be identified because of studies such as this one. It is hoped that this information will allow us to predict a patient’s risk of development of other allergic conditions such as asthma and will facilitate earlier intervention with appropriate medical treatment.

S. J. Burbank, MD
A. Wesley Burks, MD
Chapel Hill, NC
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Allison J. Burbank and A. Wesley Burks
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