

Letter to the Editor —

Diagnostic Accuracy of Skin-Prick Testing in Young Children With Asthma

We read with interest the excellent paper, “Skin-Prick Testing as a Diagnostic Aid for Childhood Asthma,” in *Pediatric Pulmonology*.¹ Skin prick tests (SPT) are an informative, easy, and safe diagnostic aid in all young children with asthma, especially of mild severity, and were advocated by Chan et al.¹ Findings obtained under well-defined clinical trial conditions can usually be reproduced in routine clinical practice. Early aeroallergen sensitization is the most important risk factor for asthma in children. The majority of children who become sensitized to aeroallergens during the first 3 years of life develop asthma later in life, whereas children who become sensitized to common aeroallergens after age 8–10 years have a risk of developing asthma that is not much higher than that of children who do not become sensitized.² We also examined the sensitization profile among infant and preschool-age children living in or near Ankara, Turkey. The SPT used in the study included nine common standardized allergens (*Dermatophagoides pteronissinus*, farina, grass mix, weed mix, cereal mix, tree mix, alternaria, cockroach, and cat, all from Stallergenes, France). A positive reaction was defined as a mean diameter of >3 mm greater than the negative control in the presence of a positive histamine reaction after 15 min. Atopy was defined as a positive response to at least one allergen used in the routine panel. Our study group was selected from all pediatric patients referred for respiratory symptoms on an outpatient basis at the Department of Pediatric Allergy and Asthma, Gazi University Hospital, between January 2003–December 2004. Among 2,680 patients who were under age 6 years, 588 (mean age, 28.3 ± 16 months; range, 6 months–5 years; 288 girls) who were found to have respiratory disease and positive skin prick tests were included in this study. Four hundred and thirty-six (74%) infants and preschool-age children who fulfilled the “stringent index” requirements were defined as having asthma.³ One hundred and thirty-six (23%) patients had allergic rhinitis concomitantly with asthma; 16 (2.7%) had only allergic rhinitis. Among these young children, 30.1% had monoallergy, and 69.9% had an allergy to two or more different allergens. Although polysensitization in preschool-age children to aeroallergens is less frequent,⁴ the high frequency of positivity to different antigens among our patients may be related to the

great variety of plants in our region. In our study, house dust mite was identified as the most common aeroallergen among all patients with respiratory disease. However, we found that sensitization to *Alternaria* was more frequently associated with asthma than sensitization to house dust mite (92.8% and 87.8%, respectively). In this study, the frequency of asthma among grass pollen-sensitized infants and preschool-age children (83%) was similar to that among house dust mite-sensitized children (87.8%). Our study suggests that allergic airway inflammation starts at a very early stage in childhood asthma.

Finally, in young children, asthma continues to be defined in terms of symptoms. For this reason, under- and overestimation of both asthma diagnosis and treatment in this age group is inevitable. Prophylactic treatment with inhaled corticosteroids (ICS) has no significant effect on the frequency of respiratory tract symptom episodes in children with virus-induced wheezing.⁵ To begin prophylactic treatment with ICS is an uncomfortable situation for a pediatrician treating a young child with recurrent wheezing who has not been labeled as having asthma. If ICS are used regularly in young wheezy children, consideration should be given to allergy evaluation. Our opinion about skin prick testing as a diagnostic aid for asthma is in line with the findings of Chan et al.¹ Skin prick tests in this young age group are reasonably reliable, not only to confirm children with asthma but also to guide their treatment.

—IPEK TURKTAS, MD*

KORAY HARMANCI, MD

ARZU BAKIRTAS, MD

Department of Pediatric Allergy and Asthma
Gazi University Faculty of Medicine
Ankara, Turkey

*Correspondence to: Dr. Ipek Turktas, Pediatric Allergy BD, Gazi Universitesi Tıp Fakültesi, Besevler, Ankara 06500, Turkey.
E-mail: ipekt@gazi.edu.tr

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