CONCLUSIONS. TSLP acts directly on cutaneous sensory neurons to cause the itching associated with AD.

REVIEWER COMMENTS. The incessant pruritus associated with AD is an important cause of morbidity and decreased quality of life. It is generally thought that AD-associated itching is primarily due to “pruritogens” released by TSLP-stimulated immune cells present in eczematous lesions. However, this study uncovers a novel pathway by which epithelial-derived TSLP can act directly on a subset of sensory neurons involved with the transmission of itch and pain signals. Because TSLP-responsive neurons also innervate the lung and gut, it is possible that the pathogenesis of asthma and food allergy may also involve epithelial–neuronal crosstalk. Finally, this study provides insight into the antipruritic mechanisms of cyclosporine, an agent often prescribed for the treatment of inflammatory skin disorders. Identifying other pharmaceuticals that target the epithelial–neuronal axis could lead to new and effective treatments for allergic disease.

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Timothy P. Moran, MD, PhD
Brian P. Vickery, MD
Chapel Hill, NC

Do Newly Built Homes Affect Rhinitis in Children? The ISAAC Phase III Study in Korea

Hahm MI, Chae Y, Kwon HJ, et al. *Allergy*. 2014;69(4):479–487

PURPOSE OF THE STUDY. The goal of this study was to identify exacerbating factors of rhinitis among Korean children.

STUDY POPULATION. A total of 3804 Korean children, between the ages of 6 and 7 years who were included in the 2010 ISAAC (International Study of Asthma and Allergies in Childhood), were included in this study. Children were recruited from 45 elementary schools throughout Korea and were included if they had parental completion of the ISAAC questionnaire and skin prick testing to 18 aeroallergens at the time of enrollment.

METHODS. Rhinitis was assessed with the question, “In the past 12 months, has your child had a problem with sneezing, or a runny or blocked nose when he/she did not have a cold or the flu?” Children were classified as having “allergic rhinitis” if they endorsed symptoms of rhinitis and were sensitized to at least 1 aeroallergen. If sensitization was not present but the child had symptoms of rhinitis, they were categorized as having “rhinitis.” Asthma and eczema were also assessed by using the questionnaire, and children were categorized as having “overlapped allergic rhinitis” and “overlapped rhinitis” if these conditions were present. Familial and demographic information and housing characteristics, such as housing type, the age of the building, presence of dampness and mold, remodeling

of the home, and history of moving to a newly built home within 1 year of birth, were also assessed by using the questionnaire.

RESULTS. The prevalence of rhinitis and allergic rhinitis in this population was 43.4% and 22.1%, respectively. In adjusted analyses, male gender and children with a parental history of atopy were more likely to experience symptoms of rhinitis or allergic rhinitis. Children who had moved to a newly built home within the first year of life were also more likely to experience symptoms of rhinitis (odds ratio [OR]: 1.42 [95% confidence interval (CI): 1.18–1.71]) and allergic rhinitis (OR: 1.42 [95% CI: 1.13–1.79]), and this association was more pronounced in those children with other atopic conditions (OR: 3.09 [95% CI: 1.71–5.57] for overlapping allergic rhinitis).

CONCLUSIONS. In this study of Korean children, those who had moved to a newly built home in their first year of life were more likely to experience rhinitis and allergic rhinitis symptoms by age 6 to 7 years. This effect was more pronounced among those who had other atopic conditions.

REVIEWER COMMENTS. This study is the first to demonstrate that newly built home exposure in early life may be a risk factor for developing allergic disease. The authors hypothesize that this finding may be due to higher concentrations of volatile organic compounds found inside newly built homes. Further research on this hypothesized mechanism, as well as confirmatory studies in other geographic locations, is needed.

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Emily C. McGowan, MD
Corinne A. Keet, MD, MHS
Baltimore, MD

Efficacy and Safety of Grass Sublingual Immunotherapy Tablet, MK-7243: A Large Randomized Controlled Trial

Maloney J, Bernstein DI, Nelson H, et al. *Ann Allergy Asthma Immunol*. 2014;112(2):146–153.e2

PURPOSE OF THE STUDY. The goal of this study was to evaluate the safety and efficacy of treatment with a grass sublingual immunotherapy tablet (MK-7243) in children and adults with allergic rhinoconjunctivitis. Previous studies have been conducted outside of North America and have included only sparse pediatric data.

STUDY POPULATION. Studied were 1501 North American subjects aged 5 to 65 years. The study included 283 children with a physician-diagnosed history of grass pollen-induced allergic rhinoconjunctivitis, with or without asthma, who had received treatment of their symptoms during the previous grass pollen season. Inclusion criteria were positive skin prick test response to *Phleum pratense* (≥ 5 -mm wheal);