had a higher proportion of symptom-free days than daily INCS users. This provides support for the suggestion that there may be a role for on-demand INCS among children with allergic rhinoconjunctivitis. Further research into this dosing strategy should be done, perhaps with a greater diversity of allergic rhinoconjunctivitis triggers.

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Efficacy of a House Dust Mite Sublingual Allergen Immunotherapy Tablet in Adults With Allergic Asthma: A Randomized Clinical Trial

Virchow JC, Backer V, Kuna P, et al. *JAMA*. 2016;315(16): 1715–1725

PURPOSE OF THE STUDY. To evaluate the efficacy and adverse events of 2 doses of house dust mite (HDM) sublingual allergen immunotherapy (SLIT) versus a placebo for asthma exacerbations during inhaled corticosteroid (ICS) reduction in cases of unstable asthma.

STUDY POPULATION. A total of 834 subjects (99% white, mean age of 33 years [range of 17–83 years], 48% women) were randomized 1:1:1 to receive 2 HDM tablet doses or a placebo. Six hundred ninety-three participants completed the trial. Dropout rates were similar among the 3 treatment groups.

METHODS. This was a double-blind, placebo-controlled, randomized trial comparing HDM SLIT using daily tablets in 2 doses (6 SQ-HDM or 12 SQ-HDM) with using a matching placebo. All subjects had HDM-related asthma and allergic rhinitis for >1 year, a positive skin prick test to HDM, and detectable HDM-specific serum IgE. All subjects had partly controlled (72%) or uncontrolled (28%) asthma (per a prespecified GINA algorithm) on ICS (400–1200 mcg budesonide equivalent) at inclusion. At randomization, 1 of the 3 study treatments was added for 7–12 months depending on the date of entry. During the last 6 months of the treatment period, the daily ICS dose was reduced by 50% for 3 months and subsequently withdrawn from the subjects who did not experience an asthma exacerbation. The primary end point, the time to the first moderate or severe asthma exacerbation, was measured from the start of the ICS reduction period until the first exacerbation. Secondary end points included asthma quality of life measurements and adverse events.

RESULTS. Both doses of HDM SLIT tablets significantly reduced the risk of a moderate or severe asthma exacerbation compared with the placebo (hazard ratio [HR] 0.72 for the 6 SQ-HDM group [95% CI, 0.52–0.99], $P = .045$; and HR 0.69 for the 12 HDM-SQ group [95% CI, 0.50–0.96], $P = .03$). There was no significant difference between the 2 active-treatment groups (HR 0.96; $P = .84$). The absolute risk for the first asthma exacerbation was 26% ($n = 62$) for the 6 SQ-HDM group, 24% ($n = 59$) for the 12 SQ-HDM group, and 32% ($n = 83$) for the placebo group, primarily involving moderate rather than severe exacerbations and with no significant difference between the 2 active-treatment groups. There was no significant difference in the change in quality of life for either active-treatment group. Local treatment-related adverse events were common in both active-treatment doses. There were no reports of anaphylaxis.

CONCLUSIONS. This is the first published controlled trial to show that patients with HDM-related asthma whose symptoms were not well controlled with ICS can achieve significant improvement in asthma control with HDM SLIT during ICS reduction. The absolute reduction after 6 months of treatment was 10%, primarily due to an effect on moderate exacerbations.

REVIEWER COMMENTS. This is a unique study showing that HDM SLIT is associated with a modest reduction in asthma exacerbations in adult patients with poorly controlled HDM-related asthma, even with ICS reduction. In March 2017, HDM SLIT tablets were approved by the FDA for use for AR in the United States by patients ages 18–65 years. In the European Union, HDM SLIT tablets are approved for use in children.

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Treatment Effect of Sublingual Immunotherapy Tablets and Pharmacotherapies for Seasonal and Perennial Allergic Rhinitis: Pooled Analyses

Durham SR, Creticos PS, Nelson HS, et al. *J Allergy Clin Immunol*. 2016;138(4):1081–1088.e4

PURPOSE OF THE STUDY. To indirectly compare the effect of sublingual immunotherapy tablets (SLIT) with selected pharmacotherapies versus placebo on nasal symptom scores in perennial (PAR) and seasonal allergic rhinitis (SAR).

STUDY POPULATION. Twenty-three SAR trials and 11 PAR trials with 18 914 patients were included in the analysis. Subjects enrolled in the trials ranged from 5 to 85 years of age.

METHODS. The authors pooled analyses from randomized, double-blind, placebo-controlled trials of SLIT to timothy grass, short ragweed, and house dust mite (HDM) and pharmacologic treatments with montelukast, desloratadine, and mometasone furoate nasal spray (MFNS). Unpublished ad hoc data on file with the manufacturers were also used. Total nasal symptoms scores (TNSS) with treatment were compared with placebo.

RESULTS. Relative to placebo, TNSS improvements in the grass SAR trials ranged from 4.0% to 27.2% (overall

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