

eosinophils, which are uncontrolled by high-dosage ICS plus LABA.

REVIEWER COMMENTS. This is the first phase 3 study of benralizumab, which acts against interleukin-5 (IL-5) receptor α and induces direct, rapid, and near-complete depletion of eosinophils. Because it acts differently than mepolizumab and reslizumab and is effective with Q8W dosing, benralizumab may be an additional option in this asthma population.

URL: www.pediatrics.org/cgi/doi/10.1542/peds.2017-2475LLLL

Daniel Har, MD
J. Andrew Bird, MD
Dallas, TX

Improved Control of Childhood Asthma With Low-Dose, Short-term Vitamin D Supplementation: A Randomized, Double-blind, Placebo-controlled Trial

Tachimoto H, Mezawa H, Segawa T, Akiyama N, Ida H, Urashima M. *Allergy*. 2016;71(7):1001-1009

PURPOSE OF THE STUDY. To assess whether low-dose, short-term vitamin D supplementation in addition to standard treatment improved control of childhood asthma.

STUDY POPULATION. Eighty-nine Japanese schoolchildren ages 6-15 years who had a diagnosis of asthma based on GINA criteria and spirometry were randomly assigned to receive vitamin D ($n = 54$) or a placebo ($n = 35$). Ninety-four percent of subjects were using either an inhaled corticosteroid or a leukotriene receptor antagonist at baseline. The median vitamin D level at baseline was 29 ng/mL.

METHODS. Collaborating pediatricians who examined the subjects at baseline, 2 months, and 6 months were blinded to vitamin D₃ (800 IU/day) or placebo treatment throughout the study. Subjects were assessed for asthma control as the primary outcome by GINA guidelines at these time points. Adherence to treatment was evaluated. Levels of serum 25(OH)D, serum IgE, and selected allergen-specific IgE levels were measured.

RESULTS. At 2 months, asthma control by GINA guidelines was significantly improved in the vitamin D group compared with the placebo group ($P = .015$). Childhood asthma control test (CACT) scores (a secondary outcome) were similarly improved at 2 months ($P = .004$) and 6 months ($P = .012$) in the vitamin D group versus the placebo group. Fewer subjects in the vitamin D group (15%) had a peak expiratory flow rate of $<80\%$ compared with the placebo group (34%) at 6 months ($P = .032$).

CONCLUSIONS. Low-dose, short-term vitamin D supplementation in addition to standard treatment may improve levels of asthma control in schoolchildren.

REVIEWER COMMENTS. There are contrasting studies in the area of vitamin D supplementation and asthma. The strengths/novelty of this study are as follows: (1) it is a randomized,

double-blind, placebo-controlled trial; (2) it involves children who are on controller therapies; and (3) it includes subjects who are not as deficient in vitamin D as those in other studies. The results support further investigation in this area to examine different doses and durations of vitamin D supplementation and the potential seasonal benefit in controlling asthma.

URL: www.pediatrics.org/cgi/doi/10.1542/peds.2017-2475MMMM

Stuart L. Abramson, MD, PhD
San Angelo, TX

Immunology

PRIMARY IMMUNODEFICIENCY

Ataxia Telangiectasia: Presentation and Diagnostic Delay

Devaney R, Pasalodos S, Suri M, Bush A, Bhatt JM. *Arch Dis Child*. 2017;102(4):328-330

PURPOSE OF THE STUDY. Ataxia-telangiectasia (A-T) is a rare, inherited, multisystemic disease involving the nervous, immune, and respiratory systems. The purpose of this study was to determine if there is a delay in presentation and diagnostic confirmation in children who are eventually diagnosed with A-T.

STUDY POPULATION. A total of 79 children attending the National Pediatric A-T Clinic in Nottingham, England, seen since 2009 were included.

METHODS. Data were collected by retrospective chart review and included the age of initial symptoms, age at first presentation to any health care provider, age when α -fetoprotein (AFP) was measured, and age when genetic diagnostic confirmation was made. Presentation delay was the time between the first concern by parents and the first presentation to health care providers, and diagnostic delay was the time between presentation to health care providers and genetic confirmation of the diagnosis.

RESULTS. A total of 71 children (90%) initially presented with ataxia, 16% presented with recurrent infections, and 5% presented with ocular telangiectasias. The median age at the first symptoms was 18 months (range 6-94 months); the median age at the first presentation to health care providers was 29 months (range 10-127 months). The median presentation delay was 8 months (range 0-118 months). The median time of AFP measurement was 60 months (range 23-221 months). All children had genetic confirmation at a median age of 51 months (range 25-178 months). The median diagnostic delay was 12 months (range 1-109 months). Nearly 40% of the children had a confirmatory diagnosis at the age of 5 years or older.

CONCLUSIONS. Significant delays were seen in the presentation and diagnostic confirmation of A-T. This may be due to a lack of awareness of this rare condition, leading parents to not

**Improved Control of Childhood Asthma With Low-Dose, Short-term Vitamin D
Supplementation: A Randomized, Double-blind, Placebo-controlled Trial**

Stuart L. Abramson

Pediatrics 2017;140;S225

DOI: 10.1542/peds.2017-2475MMMM

Updated Information & Services	including high resolution figures, can be found at: http://pediatrics.aappublications.org/content/140/Supplement_3/S225.1
Permissions & Licensing	Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at: http://www.aappublications.org/site/misc/Permissions.xhtml
Reprints	Information about ordering reprints can be found online: http://www.aappublications.org/site/misc/reprints.xhtml

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN™



PEDIATRICS®

OFFICIAL JOURNAL OF THE AMERICAN ACADEMY OF PEDIATRICS

Improved Control of Childhood Asthma With Low-Dose, Short-term Vitamin D Supplementation: A Randomized, Double-blind, Placebo-controlled Trial

Stuart L. Abramson

Pediatrics 2017;140;S225

DOI: 10.1542/peds.2017-2475MMMM

The online version of this article, along with updated information and services, is located on the World Wide Web at:

http://pediatrics.aappublications.org/content/140/Supplement_3/S225.1

Pediatrics is the official journal of the American Academy of Pediatrics. A monthly publication, it has been published continuously since 1948. Pediatrics is owned, published, and trademarked by the American Academy of Pediatrics, 141 Northwest Point Boulevard, Elk Grove Village, Illinois, 60007. Copyright © 2017 by the American Academy of Pediatrics. All rights reserved. Print ISSN: 1073-0397.

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN™

