reaction. There were 15 patients (3.0%) who had subjective oral challenge reactions, either acute transient itching or dizziness. Eleven (73.3%) had multiple drug intolerance syndrome, and none had severe reactions or objective signs. In 90 days of follow-up, 68 subjects (13.6%) who had negative testing were exposed to 88 courses of penicillins; new reactions were reported after 4 courses (4.5%), 3 (75%) occurring in subjects with multiple drug intolerance syndrome.

CONCLUSIONS. This study found that penicillin skin testing, using only penicilloyl-poly-lysine and penicillin, followed by oral amoxicillin challenge if negative on skin testing can safely identify clinically significant immunoglobulin E–mediated penicillin allergy.

REVIEWER COMMENTS. This study reinforces previous reports that very few patients with a history of penicillin allergy have positive testing, and of those with negative testing the likelihood of a reaction is extremely small, with a minimal chance of a severe reaction. It demonstrates that skin testing using only commercially available penicilloyl-poly-lysine and penicillin skin tests followed by an oral amoxicillin challenge is a safe and effective way to evaluate patients with reported penicillin allergy. The authors comment that allergists in the United States should be testing and challenging hundreds of thousands of persons annually, because there is widespread overreporting of penicillin allergy, with >20 million Americans having a history of an allergy to penicillin. Referral for penicillin allergy testing would allow more appropriate use of relatively narrow-spectrum penicillin class antibiotics.

ATOPIC DERMATITIS

Asthma and Frequency of Wheeze: Risk Factors for the Persistence of Atopic Dermatitis in Children

PURPOSE OF THE STUDY. Atopic dermatitis is known to be a risk factor for asthma. A recent study in an adolescent population suggests that asthma is associated with both the incidence and persistence of atopic dermatitis. This study also raised the question of whether the natural history of atopic dermatitis varies depending on the age of onset. The purpose of this study was to determine whether children with atopic dermatitis and a diagnosis of asthma were more likely to have persistence of skin disease and whether this finding was associated with frequency of wheeze.

STUDY POPULATION. A total of 1041 children ages 2 to 18 years of age, who were enrolled in an observational cohort study on pediatric eczema (Pediatric Eczema Elective Registry), had a diagnosis of asthma at enrollment, and completed a questionnaire 3 years after enrollment.

METHODS. Information was collected via questionnaire on the presence of atopic dermatitis, need for medications for the condition, presence of asthma, and frequency of wheezing. Information was collected biannually. The primary outcome of interest was the self-reported persistence of atopic dermatitis symptoms. The primary covariate of interest was asthma at baseline and frequency of wheezing in the previous 6 months, based on self-report.

RESULTS. Overall, 934 (90%) of the 1041 children who reported asthma at enrollment had asthma at the 3-year follow-up. The frequency of wheezing progressed over time: 76.3% noted ≥1 episode of wheezing in the previous 6 months; this figure increased to 88.7% at 3 years. At enrollment, those with a diagnosis of asthma were 30% less likely to be rash-free compared with those with no history of asthma and wheeze. At enrollment and throughout the study period, there was an association between the frequency of wheezing and the presence of rash as well as the need for skin medications. Increased frequency of wheezing was associated with a decreased chance of resolution of the rash and an increased need for medications.

CONCLUSIONS. This study suggests that those children with a diagnosis of asthma and more frequent wheezing will have more persistent atopic dermatitis.

REVIEWER COMMENTS. This study provides useful prognostic information for physicians caring for patients with asthma and atopic dermatitis. Parents of children with asthma and atopic dermatitis are likely to have persistent skin disease, especially with more severe asthma. This study does not tell us, however, whether improved control of asthma would have an effect on the persistence of skin disease.

Cytokine Biomarker Candidates in Breast Milk Associated With the Development of Atopic Dermatitis in 6-Month-Old Infants

PURPOSE OF THE STUDY. The authors identified various breast milk cytokines and chemokines that appeared to be related to the presence of infantile atopic dermatitis (AD).

STUDY POPULATION. Japanese infants with and without a history of AD at 6 months of age were recruited from...
Asthma and Frequency of Wheeze: Risk Factors for the Persistence of Atopic Dermatitis in Children

Paul V. Williams

*Pediatrics* 2013;132;S27

DOI: 10.1542/peds.2013-2294QQ

Updated Information & Services

including high resolution figures, can be found at:

/content/132/Supplement_1/S27.1.full.html

Permissions & Licensing

Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at:

/site/misc/Permissions.xhtml

Reprints

Information about ordering reprints can be found online:

/site/misc/reprints.xhtml
Asthma and Frequency of Wheeze: Risk Factors for the Persistence of Atopic Dermatitis in Children
Paul V. Williams
Pediatrics 2013;132;S27
DOI: 10.1542/peds.2013-2294QQ

The online version of this article, along with updated information and services, is located on the World Wide Web at:
/content/132/Supplement_1/S27.1.full.html