pose to injectable cephalosporins were selected for study. Reactions had occurred 1 to 48 months before evaluation. All 6 children had reacted to ceftriaxone, and 5/6 had suffered anaphylaxis.

Methods. All participants were skin tested with penicillo-polylysine, minor determinant mixture, penicillin G, ampicillin, and amoxicillin; also, cephalothin, cefuroxime, cefazidime, cefotaxime, and ceftriaxone. The various cephalosporins were tested at 2 mg/mL, a concentration previously shown to be a nonirritant in healthy control subjects. Radioallergosorbent tests (RASTs) were also performed to benzylpenicilloyl-polylysine, amoxicilloyl-polylysine, ampicilloyl-polylysine, and to the various cephalosporins conjugated to polylysine.

Results. All 6 children had positive skin tests (1 prick, 5 intradermal) for the culprit drug, but none had positive RASTs. No child reacted to any of the other cephalosporins or to any penicillin reagents. Among the adults, all but 2 individuals had positive skin tests, and 9 had positive RASTs to the culprit drugs. No one had positive RASTs with negative skin tests. Two adults had a total of 3 completely negative test batteries, including agents that had caused anaphylaxis 24, 40, and 45 months earlier. A total of 10 adults reacted to >1 cephalosporin, and there was no compelling pattern of cross-reactivity. Similarly, there was no pattern apparent in the 4 patients who reacted to penicillin reagents.

Conclusions. Most patients with histories of allergic reactions to cephalosporins are sensitized to determinants specific for the given drug, although some display cross-reactivity to other cephalosporins. A few individuals display reactivity to penicillin determinants, but this is not predicted by culprit drug or nature of reaction.

Reviewer’s Comments. This study focused on reactions after parenterally administered cephalosporins and clearly highlights the low but unpredictable incidence of cross-reactivity among these agents and the penicillins. Pediatricians dealing with the quandary of a child with a history of suspected reaction from an orally administered preparation in the outpatient setting should realize that other cephalosporins might be tolerated just fine. Because there are no reagents for in vivo or in vitro testing for these oral cephalosporins, the oral test is administered followed by a couple of hours of observation in the office. For the hospitalized child with a history of allergy to an injected cephalosporin and in need of such now, it makes sense to skin test first with the agent(s) to be considered. If the history is one of reacting to an orally administered cephalosporin, it is probably even likelier that the parenteral agent would be well-tolerated. However, because most severe reactions follow injected drug at any age, it would be wise to skin test with the desired injectable cephalosporin first. Finally, the authors described 2 adults with histories of anaphylaxis but with currently negative tests, as mentioned above. These cases represented some of the longest intervals from time of reaction to evaluation date among all the patients studied. Drug allergy often wanes over months and years, and this can happen even when the initial reactions were life-threatening.

JAMES R. BANKS, MD
Arnold, MD

LACK OF ALLERGIC CROSS-REACTIVITY TO CEPHALOSPORINS AMONG PATIENTS ALLERGIC TO PENICILLINS

all alike in the level of risk and those with dissimilar side chains offer the lowest risk of cross-reactivity.

MARY BETH BOLLINGER, DO
Baltimore, MD

IMMUNOTHERAPY

PREVENTION OF NEW SENSITIZATIONS IN ASTHMATIC CHILDREN MONOSENSITIZED TO HOUSE DUST MITE BY SPECIFIC IMMUNOTHERAPY: A 6-YEAR FOLLOW-UP STUDY


Purpose of the Study. Prevalence of atopic diseases has increased in westernized countries despite current prevention strategies. The objective of this study was to determine whether specific immunotherapy (IT) can stop progression of sensitization to additional environmental allergens in children monosensitized to house dust mites.

Study Population. One hundred thirty-four children ages 5 to 8 years, with intermittent asthma, with or without rhinitis, sensitized to house dust mites.

Methods. Children were evaluated by prick skin testing and measurement of serum allergen-specific immunoglobulin E (IgE). Parents of 75 children accepted IT and these children were received IT with dust mite extract for 3 years. The remaining 63 children were treated with medication and were considered a control group. All children were skin tested and had serum allergen-IgE measured every year for 6 years.

Results. Both groups were comparable in regard to age, sex, and presence of rhinitis. At the end of the 6-year study period, 25% of patients in the IT group showed new sensitization(s), compared with 66% in the control group (P < .0002). The most frequent new sensitizations were pollens, animal danders, and Alternaria mold. The IT was well-tolerated.

Conclusion. Specific IT may prevent the development of new sensitizations in children with asthma, with or without rhinitis, monosensitized to house dust mites.

Reviewer’s Comments. This nonrandomized clinical trial highlights the renewed interest in immunotherapy because of its potential to modify the natural history of atopic sensitization. If subsequent studies confirm the results of this trial, our standard of care may change to include early introduction of IT in atopic children, as opposed to current symptomatic management with medication with the use of immunotherapy as a second- or third-line treatment.

ANNA NOWAK-WEGRZYN, MD
New York, NY

THE UPPER AIRWAY

SUPERIORITY OF AN INTRANASAL CORTICOSTEROID COMPARED WITH AN ORAL ANTIHISTAMINE IN THE AS-NEEDED TREATMENT OF SEASONAL ALLERGIC RHINITIS


Purpose. The daily use of either intranasal corticosteroids or histamine 1 (H1) receptor antagonists has proved to be efficacious in the treatment of seasonal allergic rhinitis. Most patients, however, use these medications as needed. Our objective was to compare the effectiveness of as-needed use of H1 receptor antagonists with that of intranasal corticosteroids in the treatment of seasonal allergic rhinitis.

Study Population and Methods. We performed a randomized, open-label, parallel-group study comparing the as-needed use of an H1 receptor antagonist (loratadine) that of an intranasal corticosteroid (fluticasone propionate) in the management of fall seasonal allergic rhinitis in the fall of 1999. Subjects kept a diary of their daily symptoms and were examined at enrollment into the study and biweekly for 4 weeks during treatment. Outcome measures were the Rhinoconjunctivitis Quality of Life Questionnaire score, daily symptom diary scores, and the number of eosinophils and the levels of eosinophilic cationic protein in nasal lavage samples.

Results. Patients in the fluticasone-treated group reported significantly better scores in the activity, sleep, practical, nasal, and overall domains (P < .05) of the Rhinoconjunctivitis Quality of Life Questionnaire. The median total symptom score in the fluticasone-treated group was significantly lower than that in the loratadine-treated group (4.0 vs 7.0; P < .01). After treatment, the number of eosinophils was significantly smaller in the fluticasone-treated group compared with the loratadine-treated group (P = .001). Eosinophilic cationic protein levels followed the same pattern, with a significant correlation between the levels of eosinophilic cationic protein and the number of eosinophils (Rs = 0.70; P < .01).

Conclusion. As-needed intranasal corticosteroids reduce allergic inflammation and are more effective than as-needed H1 receptor antagonists in the treatment of seasonal allergic rhinitis.

Reviewer’s Comments. What would a study from this group be without nasal wash data? Everybody knows that most patients don’t use their allergy medicines just the way we tell them to. The results of this study are reassuring that patients can do well just by using their nasal corticosteroids as needed. I usually count on the fact that by instructing daily use of medications, most folks will use them every 2 or 3 days. If we suggest that patients use medications less frequently than that, they may not use them at all.

ALLEN ADINOFF, MD
Aurora, CO

RISK OF ADENOID HYPERPOTROPHY IN CHILDREN WITH ALLERGIC RHINITIS


Purpose of the Study. To determine the risk factor of adenoidal hypertrophy in patients with known allergic rhinitis (AR).

Study Population. Three hundred fifteen consecutive patients between the age of 1 and 18 years with a diagnosis of AR who were also found to have adenoid hypertrophy (AH). A control group of 315 similarly aged patients with AR and no evidence of AH were randomly selected.

Methods. This was a retrospective study reviewing patients seen in the allergy clinic at a University Medical Center in Florida over a 10-year period. AR was diagnosed by history, physical findings, and positive skin test results. AH was determined radiographically defined as a narrowing of the airway attributable to adenoid mass by as much...
Lack of Allergic Cross-Reactivity to Cephalosporins Among Patients Allergic to Penicillins

Mary Beth Bollinger

Pediatrics 2002;110;440

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Lack of Allergic Cross-Reactivity to Cephalosporins Among Patients Allergic to Penicillins
Mary Beth Bollinger
*Pediatrics* 2002;110;440

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