SYNOPSIS

- A primary care multicenter study from Italy (n=10) and Spain (n=12), patients with allergy related symptoms included.
- In Part I, 380 patients were classified based on clinical judgment into the categories; allergic, nonallergic or uncertain.
- In the Part II, 341 patients were classified with the addition of knowing the IgE antibody results.
- Patients with known earlier allergy tests were excluded.
- Allergen-specific IgE antibodies were tested with ImmunoCAP™ (Pharmacia Diagnostics).
- Agreement between clinical data and IgE antibody results increased from 59.1% (kappa coefficient 0.13) in Part I to 93.2% (kappa coefficient 0.86) in Part II.
- True nonallergic cases increased while true allergic cases decreased.
- The number of patients classified as uncertain decreased from 100 (26.3%) to 14 (4.1%).
- Patients advised to avoid allergens increased from 68 (18%) to 211 (62%) in Part II.

Citation: Duran-Tauleria E et al. The utility of specific immunoglobulin E measurements in primary care. Allergy 2004;59(Suppl. 78):35-41.

IgE antibody tests help primary care physicians to improve the diagnostic process

In primary care, pharmacological treatment and clinical management are often established without fully considering the presence of allergy in patients with respiratory and skin symptoms. Clinical judgment may not be enough to correctly identify allergy since many allergy-like symptoms may have other causes. The impact of adding allergen-specific IgE tests in the primary care physician's current routine was investigated in this study.

The study was a before and after multicenter study, with an educational seminar on the usefulness of *in vitro* testing for IgE-mediated allergy in between.

In Part I patients were classified only based on clinical judgment into the categories; allergic, nonallergic or uncertain. In Part II the classification was made by the same clinicians but now with the addition of knowing the IgE antibody results.

The agreement between clinical data and IgE antibody results changed from a kappa coefficient of 0.13 in Part I to 0.86 in Part II. The number of patients misclassified was reduced in Part II as well as the uncertain cases. Furthermore the proportion of patients receiving advice to avoid allergens was increased.

In the conclusion the authors state that IgE antibody determinations help primary care physicians to improve the diagnostic process, to prevent unnecessary treatment and to recommend allergen-specific avoidance.

SYNOPSIS

- DBPCFC was performed yearly in children with egg (n=88) and with milk (n=49) allergy up to 10 years.
- Patients were defined as "persistent" and "tolerant" based on DBPCFC.
- Milk- and egg-specific IgE levels were followed over time by using ImmunoCAP™ (Pharmacia Diagnostics).
- A logistic regression model was used to calculate the relationship between the decrease in IgE antibody levels and the results of DBPCFC.
- There was a significant relationship between developing tolerance and the decrease in IgE levels to egg (P=0.0014) and milk (P=0.0175).
- The probability that tolerance had been developed was 78% in egg allergy and 66% in milk allergy if the IgE antibody concentration had decreased 90%.
- A 50% decrease in allergen-specific IgE decreased the probability to 52% in egg allergy and 31% in milk allergy.

Citation: Shek LPC et al. Determination of food specific IgE levels over time can predict the development of tolerance in cow´s milk and hen´s egg allergy. J Allergy Clin Immunol 2004;114:387-91.

The decrease in milk- and egg-specific IgE over 12 months can be used as a predictor for tolerance development in food allergic children

Double-blind, placebo-controlled food challenge (DBPCFC) is the "gold standard" for diagnosis of persistent food allergy or tolerance development. However, there are no good indices to predict when and in whom a DBPCFC will turn from a positive to a negative response. In this study milk- and egg-specific IgE levels were followed over time to be used as predictors for development of clinical tolerance as measured by DBPCFC. Eighty-eight patients with egg and 49 patients with milk allergy who had undergone 2 or more DBPCFC and followed for up to 10 years were included. IgE antibodies to cow´s milk and hen´s egg were measured and a logistic regression model was used to calculate the relationship between the decrease in IgE antibody levels and the results of DBPCFC. There was a significant relationship between developing tolerance and the decrease in IgE levels to egg and milk. The effect was most pronounced in children below 4 years of age. Using the logistic models the authors developed probability estimates for a child to develop tolerance based on the decrease in allergen-specific IgE over 12 months. The use of these estimates could aid in the timing of food challenges and thereby reduce the number of DBPCFCs performed according to the authors.

SYNOPSIS

- Prescription claim records for 4,643 patients, who received at least 1 prescription for a low-sedating antihistamine, were examined in this study.
- 1,343 patients had a diagnosis of allergic rhinitis.
- 246 were tested with multiallergen-specific IgE test (Phadiatop®, Pharmacia Diagnostics) to confirm the diagnosis.
- Antihistamine users were defined as frequent if ≥3 prescriptions for LSAs during one-year period.
- 38% of frequent users and 30.1% of infrequent users had evidence of IgE antibodies
- No significant (chi-square test) difference between observed and expected frequencies among patients undergoing IgE antibody testing and prescribed LSA use (χ^2=1.5; P≤0.225).
- Approximately two thirds of patients with records of frequent LSA use were tested negative, i.e. they were not allergic.

Citation: Szeinbach SL et al. Identification of allergic disease among users of antihistamines. J Manag Care Pharm 2004;10:234-8.

Only 38% of patients classified as frequent antihistamine users, prescribed on the diagnosis of allergic rhinitis, were sensitized to common inhalant allergens

Besides patient history, diagnostic tools in allergy include avoidance, specific allergen challenges, medication trials, and those that indicate immunological sensitization. Several publications have recently shown that patient history and symptoms may not align well with the results obtained from in vitro diagnostic tests. Antihistamines are a well-accepted first line strategy to help patients with allergic symptoms. The aim of this study was to investigate if patients who are frequent antihistamine users have a true IgE antibody sensitization.

In a population of patients, receiving a low-sedating antihistamine (LSA) prescribed on a diagnosis of allergic rhinitis, 246 were tested with a multiallergen-specific IgE test to confirm the diagnosis. Of the 163 frequent antihistamine users only 38% had evidence of IgE antibodies and 30.1% of infrequent users also had similar evidence. The authors conclude that routine history and physical examination may not always provide accurate evidence to discern allergic from non-allergic rhinitis and that there is no relation between prescribing antihistamine and patient sensitization status. Objective means such as multiallergen-specific IgE testing is recommended.