

SYNOPSIS

- No 'gold standard' test for diagnosing allergic disease exists.
- Recommendations for specific IgE antibody tests have been made by the National Committee for Clinical Laboratory Standards.
- Pharmacia's IgE test systems adhere to these recommendations.
- Results from different IgE testing systems are not always consistent.
- UniCAP® has been shown to have a sensitivity and specificity of over 90%.
- IgE values represent the relative risk of having or developing an allergic disease.
- Primary care physicians can misdiagnose non-allergic individuals as having an allergy. Routine use of specific IgE testing would reduce the risk of such misdiagnoses.

Citation: Ahlstedt S. Understanding the usefulness of specific IgE blood tests in allergy. Clin Exp Allergy 2002; 32: 11-6.

Specific IgE testing is of clinical value

This paper provides a valuable review of specific IgE testing and provides insights into the clinical benefits that such testing can provide. Blood tests for specific IgE antibodies were introduced about 25 years ago. Today, Pharmacia Diagnostics supplies systems that meet current independent recommendations, and provide reliable and accurate results. Results of IgE tests provide information on the risk of having or developing allergic disease. For example, infants with IgE antibodies to inhalant allergens have a 7.4-fold increase in the risk of developing subsequent asthma. As well as identifying patients at risk, IgE tests provide a means of showing conclusively that a patient has an IgE-mediated allergy, thus reducing the risk of misdiagnosis.

SYNOPSIS

- 164 adults with asthma, who required glucocorticoid treatment, were randomized to be monitored using serum eosinophil cationic protein (ECP) or peak expiratory flow (PEF) over a period of 6 months.
- Mean daily dose of inhaled glucocorticoids was similar in the two groups at baseline.
- Inhaled glucocorticoid dose increased during the study, but was lower in the ECP-monitored group.
- There was no difference in mean daily symptom score between the two groups at the end of the study.

Citation: Löwhagen O et al. The inflammatory marker serum eosinophil cationic protein (ECP) compared with PEF as a tool to decide inhaled corticosteroid dose in asthmatic patients. Respir Med 2002; 96: 95-101.

ECP tests: can they monitor asthma treatment?

Current guidelines suggest that lung function tests represent the best method for monitoring asthma. However, there is growing recognition that such tests do not reflect the underlying airway inflammation. Objective markers of inflammation, such as serum ECP, are thus of interest. In this study, both PEF and ECP monitoring resulted in an increase in glucocorticoid dose without a beneficial change in symptom scores. ECP monitoring led to a lower glucocorticoid dose than PEF monitoring (thus lowering the risk of side effects), but there was a slight deterioration in forced expiratory volume in one second. The authors conclude that neither test on its own is ideal, but adapting treatment based on the results of both tests may be beneficial.

SYNOPSIS

- Atopic status, exposure to allergens and the presence of respiratory viruses were assessed in 60 adult asthma patients admitted to hospital with acute asthma, and also in stable asthma and non-asthmatic patients.
- 66% of patients admitted to hospital were sensitized and exposed to at least one common allergen, compared with only 37% of the stable asthma group.
- Sensitization and exposure to allergens was an independent risk factor for hospitalization due to asthma (odds ratio [OR]: 2.3, $p = 0.05$).
- Sensitization and high exposure to allergens, in combination with respiratory virus, were associated with an OR of 8.4 ($p = 0.002$) for hospitalization.

Citation: Green RM et al. Synergism between allergens and viruses and risk of hospital admission with asthma: case-control study. BMJ 2002; 324: 763-6.

Allergy increases the risk of hospitalization in asthma: viral interactions are of importance

Hospitalizations represent a significant proportion of total asthma management costs, and strategies to reduce the number of hospitalizations in asthma are required. This study shows that sensitization (as measured by IgE and skin-prick tests) to common allergens is significantly more frequent in patients with asthma than in those without. Importantly, sensitization and exposure to allergens were shown to be a risk factor for hospitalizations, and this risk was increased by viral infections. Clearly, identifying allergies and taking measures to reduce exposure may be an appropriate strategy for reducing hospitalizations in asthma.