

SYNOPSIS

- In this prospective study, the results of oral egg challenge, skin prick tests and specific IgE levels were compared in 107 young children (1–19 months) with atopic dermatitis who had never ingested egg.
- 67.3% of the children had a reaction to the oral egg challenge, and 7% of these were severe, including one case of anaphylactic shock.
- All the children who had an IgE for albumin > 99 kU/L or an IgE for yolk \geq 17.5 kU/L had a positive oral challenge.
- A skin prick test for albumin or yolk resulting in a weal diameter of \geq 5 mm also had a 100% positive predictive value.

Citation: Monti G et al. High incidence of adverse reactions to egg challenge on first known exposure in young atopic dermatitis children: predictive value of skin prick test and radioallergosorbent test to egg proteins. Clin Exp Allergy 2002; 32: 1515–19.

ImmunoCAPTM blood testing reduces the need for oral food challenge

Evidence suggests that about one-third of children with atopic dermatitis have a clinically significant food allergy. Oral food challenge tests are the 'gold standard' for detection of food allergy, but they are unpleasant for the child and carry a risk of severe reactions. Furthermore, because of the potential for severe reactions, the test should be done in a hospital and can be costly. This study suggests that young children with atopic dermatitis who have a specific IgE to albumin > 99 kU/L or a specific IgE to yolk \geq 17.5 kU/L need not be subjected to an oral egg challenge. However, it should be noted that IgE levels below these cut-offs (or indeed negative skin prick tests) do not rule out egg allergy.

SYNOPSIS

- Two groups of children and young adults with atopic dermatitis were assessed for food allergy 10 years apart (1988–1989 and 1998–1999) and compared.
- There were no significant differences in sensitization rates to major food allergens (egg, milk, wheat, soybean, peanut, fish) between the two groups.
- The group evaluated most recently had a higher proportion of clinical reactivity to major food allergens, mainly as a result of an increase in milk and peanut reactivity.
- For the group evaluated recently, substantial proportions of those with clinical reactivity to milk (29%), egg (50%) and peanut (45%) were classified as such using specific IgE tests only (ImmunoCAPTM).

Citation: Ellman L et al. Food hypersensitivity in two groups of children and young adults with atopic dermatitis evaluated a decade apart. Pediatr Allergy Immunol 2002; 13: 295–8.

A decade apart: growing clinical reactivity to major food allergens, growing value of IgE antibody tests

This study illustrates that despite common perceptions, there has not been a change in the spectrum of food allergens or a growth in the sensitization to major food allergens over the past 10 years. However, there does appear to have been an increase in the rate of clinical reactivity to major food allergens, which may reflect a general increase in atopic disease. By applying IgE cut-off values of 6 kU/L for egg, 32 kU/L for milk and 15 kU/L for peanut which give greater than 95% predictivity, the investigators were now able to detect clinical reactivity without the need for a costly and unpleasant oral challenge test for up to half of the patients who were reactive. The IgE antibody cut-off values were established in an earlier study with ImmunoCAPTM technology from Pharmacia Diagnostics (Sampson and Ho, 1997).

SYNOPSIS

- The relationship between pet exposure and allergic disease in 5360 children aged 5–14 years was assessed through questionnaires.
- Specific IgE tests (mixed grasses, birch, cat and house dust mite) using ImmunoCAPTM technology were carried out in 85% of the children.
- Contact with dogs through the first year of life was negatively associated with hay fever, eczema, bronchitis, itchy rash and strong pollen sensitization.
- After adjusting for a host of possible confounding factors, contact with dog during the first year of life was associated with a reduced risk of asthma (OR = 0.68), hay fever (OR = 0.61), eczema (OR = 0.76), itchy rash (OR = 0.76) and strong pollen sensitization (OR = 0.56).
- Similar results were found for current dog contact.
- No other clear relationships for pets were identified, except that current cat exposure was associated with cat sensitization.

Citation: Hölscher B. Exposure to pets and allergies in children. Pediatr Allergy Immunol 2002; 13: 334–41.

Pet exposure and allergies: are dogs better than cats?

There has been much debate regarding the effect of pet exposure on the risk of allergic disease. Some studies have concluded that pets increase the risk of allergic disease, although increasingly evidence points to a protective effect of early exposure. This large-scale study provides good evidence that exposure to dog protects children from allergic disease, but no evidence for a protective effect of cats, rodents or birds was found. The authors suggest that this may be due to greater exposure to microbial antigens associated with dogs. Studies such as this are limited because allergic disease data are gained retrospectively via questionnaire. In this case, however, the disease data are greatly strengthened by the supporting objective IgE antibody results.