

SYNOPSIS

- A cohort of 55 patients with asthma since childhood were followed from 30 to 35 years of age.
- Asthma history was based on a interview questionnaire.
- Sensitization was assayed quantitatively in serum by Pharmacia CAP System™ and by skin prick test (SPT).
- The slight decrease in asthma severity over the follow-up period was not significant.
- A small but significant decrease in specific IgE was shown for timothy (p<0.001), dog (p<0.001), cat (p<0.001) and horse (p<0.004).
- Total IgE decreased significantly (p=0.004).
- 10 new sensitization specificities were obtained in the population during the follow up period.
- There was a significant relationship between the number of positive ImmunoCAP™ tests to animal danders and BHR (p=0.034).

Citation: Kjellman B et al. Asthma severity, allergy and lung function during young middle life in subjects with asthma in childhood. *Respir Med* 2002; **96**(9): 716-24.

Significant relationship between asthma severity in young middle life and the number of positive ImmunoCAP™ tests to animal dander

A small but strongly significant decrease in the level of specific IgE to common allergens was shown by using Pharmacia CAP System™ in a five-year follow up study of asthma patients from the age of 30 to 35 years of age. This decrease was not possible to show clearly with SPT.

Despite this decrease in specific IgE levels patients retained the possibility to obtain new sensitizations to common allergens. Furthermore, a significant relationship was shown between asthma severity and the number of positive ImmunoCAP™ tests to animal dander in individual patients. These results indicate that decrease in IgE-sensitization mechanisms are very slow in this age group and point at the importance to investigate sensitization to different common animal danders in asthma patients.

SYNOPSIS

- Twenty patients (age range, 19-37) with allergic rhinitis were recruited.
- All patients had sensitization to at least 2 inhalation allergens.
- Subjects with previous vaccinations or other immunomodulatory treatments were excluded.
- Serum were collected before and 4 months after BCG vaccination.
- Allergen specific IgE and total serum IgE were assayed by Pharmacia CAP System™.
- 18 of 20 subjects showed a significant decrease in total IgE (p<0.001) and in specific IgE (p=0.004) measured as the mean value of all specificities together.
- Five patients become negative for one or more allergens after BCG vaccination.
- The long-term effect of BCG vaccination will be described later.

Citation: Cavallo GP et al. Decrease of specific and total IgE levels in allergic patients after BCG vaccination: preliminary report. *Arch Otolaryngol Head Neck Surg* 2002; **128**(9): 1058-60.

Decreased serum concentration of allergen-specific IgE four months after BCG vaccination

Decreased frequency of microbial infections has been suggested to be responsible for the increase in atopic allergy. Tuberculosis could be one of many contributing factors and BCG vaccination mimics some of its characterization. BCG-like vaccination decreased IgE production in animal experiments but the effect in humans is controversial. In this study it was possible to verify, by using Pharmacia CAP System™, a significant decrease in allergen-specific IgE concentration and total IgE concentration 4 months after BCG vaccination of adults with allergic rhinitis.

These results indicate at least a short-term effect of BCG vaccination on allergen specific IgE production and further point at the usefulness of quantitative measurements of specific IgE to monitor modulation of IgE responsiveness.

SYNOPSIS

- Questionnaire based study on 505 infants followed for 5 years.
- Dust sample collected at age of 2-3 months and assayed for cat allergen.
- 20.9% of infants were exposed to cat dander.
- Children without maternal history of asthma had a decreased relative risk of 0.6 to develop wheezing stable over the study.
- Children with maternal history of asthma had a increased relative risk for wheezing of 2.4 by the age of 3 years and increased over the study period.

Citation: Celedón JC et al. Exposure to cat allergen, maternal history of asthma, and wheezing in first 5 years of life. *Lancet* 2002; **360** (9335): 781-2.

Reduced risk of wheezing in children exposed to cats early in life when born by mothers without history of asthma

Exposure to cat and/or dog dander in early life has recently been claimed to decrease the risk to develop childhood asthma and sensitization. The results are controversial and contradictory, but are of great importance to patients. In this study it was shown that cat dander exposure at two months of age had a protective effect on the development of wheezing in the first 5 years of life in children born by mothers without history of asthma. However, children born by mothers with history of asthma had an increased risk developing wheezing. The authors point out limitations to their study since they had no information on the sensitization to cats and ongoing exposure to cat allergen in early childhood.