

Introduction

The frequency of respiratory allergies have increased in the last decades. Wheezing has been for a long time the most frequent cause for consultation in pediatric hospitals.

Objetives

The aim of this study is to characterize children under five years old with wheezing episodes in the outpatient of the allergy unit of a third level institution.

Methods

- A prospective study was conducted between April 2014 and April 2015.
- Patients aged between 0 and 5 years with wheezing episodes were included.
- A complete clinical record was obtained and physical examination performed
- Assessment of sensitization profile was determined by means of skin prick test for aeroallergens and/or food allergens when it was consider necessarily.
- mAPI (modified asthma predictive index) or original API were calculated in patients aged between 2 and 3 years.
- We tried to find any association between risk factors and wheezing episodes .

Results

A preliminary analysis included 264 patients with wheezing episodes. One hundred fifty one (57%) were male; mean age was 36 months old; 195 (74%) were from Cali. In 146 (55%), skin prick tests were performed. Of those, 145 (99%) were tested for aeroallergens and 65 (44%) for food sensitization. Positivity for aeroallergens (house dust mites) were found in 46 (32%) (**Figure 1**).

mAPI or API were calculated in 92 patients (35%) aged between 2 and 3 years. In 69 (75%), mIPA was used and in other 23 (25%), original API was used being negative in all of them (**Table 1**).

Different risk factors were assessed. One hundred sixty patients (60%) were born by caesarean section; 34 (13%) had prematurity; 89 (34%) received exclusive breastfeeding for six months; 233 (88%) were not exposed to smoking environment; 87 (32%) had bronchiolitis in the first year of life and 193 (73%) had family history of atopy in first degree (**Table 2**).

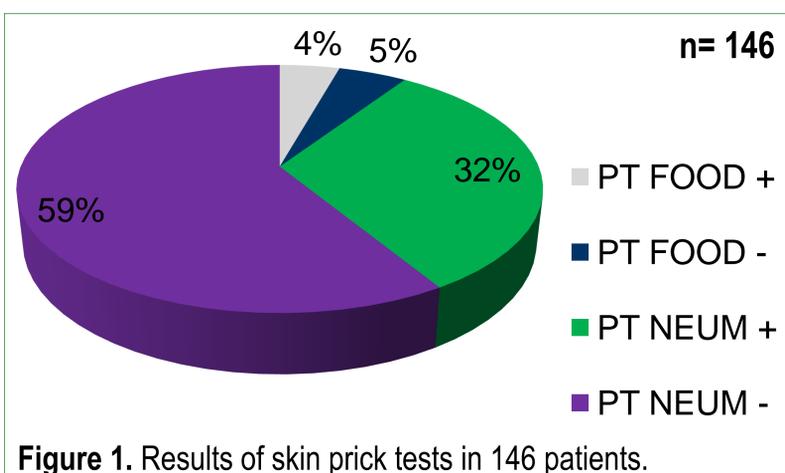


Figure 1. Results of skin prick tests in 146 patients.

Modified API n= 69 (%)

| Positive | Negative |
|----------|----------|
| 51 (74%) | 18 (26%) |

Original API n= 23 (%)

| Positive | Negative |
|----------|-----------|
| 0 (0%) | 23 (100%) |

Table 1. Proportion of patients with positive and negative mAPI or original API.

Risk factors for wheeze OR [IC 95%] (n=264)

| | |
|---|-------------------------|
| Exclusive breastfeeding (6 m) | 1.09 (0.76-1.57) |
| History of atopy in first degree | 1.72 (1.20-2.49) |
| Birth way by caesarean section | 0.97 (0.68-1.39) |
| Bronchiolitis | 2.42 (1.63-3.62) |
| Prematurity | 1.04 (0.62-1.74) |
| Passive smoking exposition | 1.15 (0.67-1.99) |

Table 2. Risk factors (odds ratio) for wheeze in 264 patients

Conclusions

In this cohort, a great percentage of wheezing patients aged between two and three years had a positive mAPI, but it was not explained by aeroallergens sensitization. Bronchiolitis in the first year of life and history of atopy in first degree relatives, were found to be risk factor s for wheeze in the first five years of life.

References

- Martinez FD, et al. Asthma and wheezing in the first six years of life. The Tucson respiratory cohort. N Engl J Med 1995; 332:133
- Castro Rodriguez JA, et al. A clinical index to define risk of asthma in young children with recurrent wheezing Am J Respir Crit Care Med. 2000; 162: 1403-6.
- Guilbert YW, et al. Atopic characteristics of children with recurrent wheezing at high risk for the development of childhood asthma. JACI 2004; 114: 1282-7