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57 – Allergy Diagnosis in General Practice, How Can the General Practitioner Deal With Allergy Problems in a Qualified Way?

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Allergy is a common disease in the consultation family doctor and primary care worldwide because it has increased in the last decade and in recent years there has been a breakthrough in terms of diagnostic methods, which must be well targeted from primary care for proper treatment. However, despite these advances in Latin America there are still few studies that explore the epidemiology of food allergy, so, little of the frequency of food allergy is known, such as: cow's milk and hen's egg.

Some studies published in Mexico and Brazil report that milk and eggs are the most common sources of allergens, being less frequently found in Europe and the US. In Latin America, on the other hand we found other foods that cause allergies such as corn, soybeans, some fruits and vegetables.

Against an allergen it is important to determine what type of sign-symptoms we can find in the patient according to the most affected system. Statistically the most affected system is the skin. In 60-80% patients have symptoms such as erythema, pruritus, and wheals. In Latin America, foods are the most common cause of anaphylaxis after drugs.

The respiratory system is affected in 40-60% with symptoms such as nasal itching, frequent sneezing, rhinorrhoea hyaline mucous, lacrimation (epiphora), cough and wheezing. And finally the gastrointestinal system in 30-40%.

Asthma is a chronic inflammation of the airways associated with increased bronchial reactivity to various stimuli, usually begins in the early years of life and 30% of the patients will continue with asthma throughout their life.

Both asthma and allergic rhinitis are the most common chronic diseases in childhood, in Latin America according to the study ISAAC Phase I and Phase III between the ages of 6-7 years and 13 and 14 respectively.

It is important to know the relationship of asthma with allergic rhinitis, since most patients with asthma (occupational, allergic and non-allergic) also have rhinitis, while 10-40% of patients with allergic rhinitis have asthma as co-morbidity. This association is also found in Latin America, especially in Argentina and Mexico, according to the ARIA - 2010 (Allergic Rhinitis and its Impact on Asthma). ARIA-2010, which was one of the first recommendations guides for adults and children for prevention, pharmacotherapy, allergen immunotherapy - specifies as well alternative and complementary medicine and use of biologicals as Omalizumab.

According to studies of the phenotypes of allergic rhinitis in a study in Mexico

intermittent rhinitis was found in 56.4% and 43.6% persistent. of which only 15% had mild rhinitis and perennial rhinitis 82%.

Other studies focused on asthma, rhinitis and eczema in 18 countries in Latin America (Mexico, Honduras Guatemala El Salvador Nicaragua, Costa Rica, Panama, Cuba, Venezuela, Colombia, Ecuador, Bolivia, Peru, Chile, Argentina, Uruguay, Paraguay and Brazil) with different socio-economic factors of development, cultural and environmental situation in these countries. The hygiene theory suggests environmental factors that act as protectors of asthma are of low frequency in industrialized countries, however, the prevalence of asthma in Latin America is high, environmental pollution seems to play a paradoxical role as in countries with greater pollution the asthma prevalence is similar to that in the least contaminated.

According to population studies in Latin America 60% of children live in poverty which hinders access to primary medical care, proper diagnosis and measures for the rational management of the disease, which disrupts and interferes with quality of life impairment and limitations in their school, work and social performance.

The prevalence of asthma symptoms had a tendency to be higher in centres located in areas of greatest poverty in their respective countries suggesting that socio-economic status would be a greater risk to have higher prevalence of asthma.

However genetics certainly plays a determining role, there exist at least three types of genes related to the disease: having or not having asthma, genes that modulate the severity of asthma and genes related to the response to treatment.

Family history of asthma contributes more than intra- or extra-domiciliary environmental factors. In Latin America there is no clear evidence about the genetic factor but the environmental factor seems to play an important role. The interaction of genetic factors with environmental factors (allergens) would be responsible for the atopic constitution. For a child with asthma it is imperative to modify the natural history of disease and avoid prolonged exposure until adulthood. It is the physician's duty to seek the responsible allergens, check the role of these in the presentation of symptoms by provocative tests , and finally indicate the treatment to follow.

The male gender predominates in small and school children, while the female is more affected in adolescence and adulthood by hormonal influence.

In most Latin American countries the diagnosis is made by Prick test, RAST test is less sensitive, and semi-quantitative methods such as electrophoresis to detect the presence of specific IgE. However modern techniques as the molecular diagnosis that is primarily used in allergic rhinitis and asthma, food allergy multiple sensitization, severe atopic dermatitis, allergic to several foods, prescription immunotherapy allergens pollens-food or mites shellfish, by Individual study: ImmunoCAP and Biochip composed of 112 components today: Immuno CAP ISAC is still not done in most of our countries.

To conduct proper management it is important to know the differential diagnosis of urticaria and angioedema with erythema multiforme, dermatitis herpetiformis, pemphigoid, toxicoderma, lymphoedema, cellulitis and Melkersson-Rosenthal syndrome. Allergic rhinitis must be distinguished from nasal polyposis, sinusitis, common cold and asthma with bronchiolitis in infants, adults with chronic bronchitis and COPD.

Take Home Message

- Allergic disease is now considered a 21st century disease in industrialized countries and in Latin America.
- Both asthma and allergic rhinitis are the most common chronic diseases in childhood in Latin America .
- Low socio-economic status results in higher risk to have a higher prevalence of asthma.
- In Latin America, foods are the most common cause of anaphylaxis after drugs.
- Allergic rhinitis must be distinguished from nasal polyposis, sinusitis, common cold and asthma with bronchiolitis in infants, adults with chronic bronchitis and COPD. For proper management .

Original Abstract

<http://www.woncaeurope.org/content/243-allergy-diagnosis-general-practice-how-can-general-practitioner-deal-allergy-problems>

References

- Jorge Sánchez, María Nelly Restrepo, José Mopan et all. Alergia a la leche y al huevo: diagnóstico y manejo e implicaciones en América Latina. *Biomédica* 2014;34(1): 143-156.
- J. Mallol. El asma en niños de América Latina. *Allegologia et Immunopathologia* 2004;32(3)
- Carlos E Baena-Cagnani, Mario Sánchez-Borges, Mario E Zernotti et all. ARIA (Rinitis Alérgica y su impacto en Asma). Logros en 10 años y necesidades futuras en América Latina. *Alergia México* 2013;60:184-192.
- Guerra Pérez MT, Diagnostico de la Alergia en Atención Primaria, para qué?. *Pediatría Atención Primaria* 2015;(24):65-75.
- Neffen H, Mello Jr J, Wingertzahn M y colaboradores. Epidemiología de la Rinitis Alérgica en Ocho Países de América Latina. *Otorrinolaringología* 2010;31(3):9-27
- ARIA México 2014 Adaptación de la Guía de Practica Clínica ARIA 2010 para México. Metodología ADAPTE. *Alergia México* 2014;61(1):53-116.
- Viviana Lezana, J. Carlos Arancibia. Consideraciones Epidemiológicas del Asma en Latinoamérica Universidad de Valparaíso Hospital Dr. Gustavo Fricke de Vina del Mar (fecha de acceso 21 de junio 2016) disponible en: <http://www.neumologia-pediatria.cl>