Volume 3, Issue 3, March 2025 ISSN (E): 2938-3765

FOOD ALLERGY IN CHILDREN: PRESENTATION AND CLINICAL COURSE, MODERN TREATMENT METHODS

Achilova Donokhan Nutfullaevna 1,
Saidova Sevara Umidjon kizi 2
1. Professor of the 2nd Department of Pediatrics, Bukhara State Medical Institute, DSc.
2. Bukhara State Medical Institute, clinical resident of the 2nd Department of Pediatrics

Abstract
This article analyzes the incidence, clinical course, and modern treatment methods of food allergies in children. Information is provided on the etiology, diagnosis, and innovative approaches used in the treatment of food allergies. Measures to prevent this disease are also discussed. Studies examine the immunological basis of food allergies, mechanisms of action on the body, and stages of disease development. In addition, the most common allergenic products among children, their pathophysiological effects, and the course of allergies in different age groups are discussed. The article also presents the latest scientific achievements in the diagnosis and treatment of food allergies based on international and local scientific sources.

Keywords: Food allergy, children, clinical course, diagnostics, modern treatment, immunology.

INTRODUCTION

The prevalence of seasonal allergies in children is increasing year by year. This condition occurs as a result of hypersensitivity of the immune system, causing various inconveniences in children. Allergies negatively affect not only the physical condition of the child, but also his overall quality of life. Every year in the spring and summer, allergic reactions increase, which leads to the appearance of symptoms such as breathing problems, skin rashes and watery eyes in children of different ages. Such situations cause great concern not only for the child, but also for his parents and family members[1].

Food allergy is one of the most common problems among children today. According to statistics, food allergy is diagnosed in 6-8% of children in developed countries. This disease is an adverse reaction of the immune system, which can sometimes lead to severe anaphylactic shock. Therefore, the study of the causes, clinical course and modern treatment methods of food allergy is an urgent issue[2].

In recent years, environmental factors, artificial additives and changes in the composition of food products have significantly influenced the development of allergies among children. Hygiene theory also plays an important role, namely, the immune system of children raised in an excessively clean environment may be prone to allergic reactions. Timely diagnosis of food allergies and the use of effective treatment methods can improve the quality of life of children and prevent serious complications[3].

Web of Medicine: Journal of Medicine, Practice and Nursing
webofjournals.com/index.php/5

Etiology and pathogenesis of food allergy. Food allergies develop as a result of the immune system's adverse reaction to certain food components. These reactions are often mediated by immunoglobulin E (IgE). The main factors that trigger allergies include:

Genetic factors – Genetic predisposition plays a significant role in the development of food allergies. Studies show that if one of the child's parents suffers from allergies, the child's likelihood of developing this disease increases by 30-40%. If both parents suffer from allergic diseases, this figure can reach 60-80%. The tendency to allergies is associated with the specific features of the immune system, which causes the body to respond with hypersensitivity to certain allergens. In connection with genetic factors, there is an increase in the production of immunoglobulin E (IgE), as well as increased activity of immune system cells[4,5].

Environmental impacts – Environmental factors play an important role in the development of food allergies. Air pollution, pesticides, chemicals, artificial preservatives and colorings added to food products can cause allergies in children. Also, excessive use of antibiotics leads to disruption of the intestinal microflora, which leads to improper functioning of the immune system and the development of food allergies. To reduce the negative consequences of environmental influences, it is important to use natural and environmentally friendly products, maintain air quality and children's microbiota[6].

Disruption of intestinal microflora – An imbalance in the intestinal microflora can lead to a malfunctioning immune response. Studies show that a lack of probiotics increases the risk of developing food allergies. The intestinal microbiota plays an important role in the formation of the immune system, and its normal state is of great importance in preventing allergic reactions[7,8].

Clinical course. Clinical signs of food allergy can manifest in various body systems: - Skin reactions: atopic dermatitis, urticaria, angioedema. - Digestive system symptoms: vomiting, diarrhea, abdominal pain, flatulence. - Respiratory tract symptoms: allergic rhinitis, asthma, wheezing. - Anaphylaxis: a rapidly developing and life-threatening condition that requires emergency medical attention.

Diagnostics. The following diagnostic methods are used to diagnose food allergies: 1) History and clinical symptom assessment – the doctor studies the patient's allergic history. 2) Skin allergy tests – used to detect IgE-mediated reactions. 3) Specific IgE tests – the diagnosis is made by determining the amount of IgE in the blood to allergens. 4) Elimination diet and provocation tests – certain products are removed from the diet and symptoms are observed.

Modern treatment methods. The following approaches are used in the treatment of food allergies: Diet therapy: eliminating allergenic foods from the diet. Pharmacological treatment:

— Antihistamines – reduce symptoms.
— Corticosteroids – have an anti-inflammatory effect in severe cases.
— Epinephrine (adrenaline) – used as emergency medicine during anaphylaxis.

Web of Medicine: Journal of Medicine, Practice and Nursing
webofjournals.com/index.php/5

Immunotherapy: administering an allergen in gradually increasing doses to acclimate the body to the allergen. Probiotics and prebiotics: strengthening the immune system by improving the intestinal microflora.

Preventing food allergies. The following preventive measures are important to prevent food allergies:

- **Proper nutrition of the mother**: During pregnancy and lactation, the mother should pay attention to her diet and avoid highly allergenic products.
- **Proper nutrition of children**: When introducing complementary foods, it is necessary to take a gradual approach and pay attention to allergic reactions.
- **Maintaining intestinal microflora**: Use antibiotics only when necessary, support microflora with probiotics and prebiotics.
- **Reduction of environmental factors**: Improve air quality, choose products free of chemical additives.
- **Strengthening immunity**: Strengthening children's immune systems through exercise, fresh air, and a balanced diet.

Natural and preventive methods:

- Avoid allergens - keep doors and windows closed during the blooming season.
- Use of special curtains and air filters.
- Drink more water and eat a balanced diet.
- Taking vitamins to strengthen the body.

Conclusion

Food allergy is a serious problem in children, and early detection and the use of modern treatment methods can help reduce the negative consequences of the disease. Studies show that with the help of an individual approach and preventive measures, severe food allergies can be prevented. At the same time, it is important to raise awareness among parents and healthcare professionals, provide advice on combating allergic reactions, and systematically carry out preventive measures. The development of new treatment methods, including approaches such as immunotherapy and gene therapy, will help increase the chances of effective treatment of food allergies in the future.

REFERENCES

1. Sicherer, SH, & Sampson, HA (2018). Food allergy: Epidemiology, pathogenesis, diagnosis, and treatment. Journal of Allergy and Clinical Immunology, 141(1), 41-58.
2. Muraro, A., et al. (2014). EAACI food allergy and anaphylaxis guidelines. Allergy, 69(5), 590-601.
3. Boyce, JA, et al. (2010). Guidelines for the diagnosis and management of food allergy in the United States. Journal of Allergy and Clinical Immunology, 126(6), S1-S58.
4. Burks, AW, et al. (2012). Oral tolerance, food allergy, and immunotherapy: Implications for future treatment. Journal of Allergy and Clinical Immunology, 129(2), 294-300.

Web of Medicine: Journal of Medicine, Practice and Nursing
webofjournals.com/index.php/5

5. NIAID-Sponsored Expert Panel. (2010). Guidelines for the diagnosis and management of food allergy. Journal of Allergy and Clinical Immunology, 126(6 Suppl), S1-S58.
6. Pavord ID, Beasley R, Agusti A. After asthma: redefining airways diseases. Lancet, 2024.
7. Hecking PP, Wener RR, Amelink M. The prevalence of severe refractory asthma. Journal of Allergy and Clinical Immunology, 2023.
8. Lambrecht BN, Hammad H. The immunology of asthma. Nature Immunology, 2023.

Web of Medicine: Journal of Medicine, Practice and Nursing
webofjournals.com/index.php/5