

DISEASES OF THE GASTROINTESTINAL TRACT AGAINST THE BACKGROUND OF FOOD ALLERGIES IN CHILDREN OF EARLY AND PRESCHOOL AGE

Kobiljonova Sh.R.

Mirsagatova M.R.

Obloqulov A.G.

Annotation: This article discusses food allergies in children of younger age groups. Food allergy is present in the majority (70% and above) of children of younger age groups. It largely determines the background against which functional disorders and organic diseases of the digestive system are formed. The presence of food sensitization in a child with a gastroenterological disease can be masked by the symptoms of the latter, which makes treatment and preventive measures in the patient less effective.

Key words: food allergy, infants, preschool children, allergies, diseases of the gastrointestinal tract

Significantly changed in the last 15-20 years of socio-economic conditions of life in our country, the deterioration of the health of the population, including children, indicate the need for epidemiological studies of the prevalence and structure of gastroenterological diseases and food allergies in children, studying the characteristics of changes in metabolic and immunological homeostasis, which will clarify their role and the allergic factor in the formation and development of this pathology, improve methods of diagnosis and treatment. The solution of these issues is undoubtedly relevant and socially significant for pediatrics and medicine in general.

It is known that there is a relationship between the immune system and metabolic processes, in particular, the hen egg protein allergen can activate the monooxygenase system, as shown in the experiment. The clinic has proven the existence of reciprocal relationships between food sensitization and various aspects of metabolism: an increase in the severity of endogenous intoxication, activation of the components of the monooxygenase system, lipid peroxidation processes, a decrease in antioxidant protection and allergization of the body. There is evidence that common mechanisms are involved in the pathogenesis of inflammation and atherosclerosis, since both syndromes form the same connective tissue cells (endothelial, fibroblasts, monocytes and macrophages, neutrophils, T- and B-lymphocytes), in both situations in the reaction of "respiratory explosion" the formation of superoxide radicals is enhanced and lipid peroxidation is activated, polyunsaturated fatty acids in the composition of low-density lipoprotein cholesterol esters (LDL) are also oxidized, antioxidant protection is reduced, the synthesis and secretion of proteins of the acute phase of inflammation into the blood increases. Of great interest are recent data on the presence of an atherogenic shift in the spectrum of lipids in allergy, especially its gastrointestinal form. So far, the features of lipid metabolism in children with diseases of the digestive system at an early stage of their formation and in the presence of such a background as food allergy have not been established. Given that the cornerstone of the treatment of dyslipidemia and food allergies in childhood is rational nutrition, it should be recognized as relevant the problem of early detection of food allergies and dyslipidemias and the correction of therapeutic measures in children with gastroenterological pathology. Considering the foregoing, it can be assumed that improving the diagnosis and prognosis of the course of food allergy, especially its gastrointestinal form in children with pathology of the digestive system, is possible based on the identification of certain

metabolic markers and their comprehensive assessment. One of the ways of early detection of dyslipidemia in children should be the identification of those gastroenterological diseases, in the genesis of which an allergic factor is often found.

An important role in childhood in the construction of therapy for gastroenterological pathology belongs to the correction of the diet using therapeutic food products with desired properties, this applies to food allergies and dyslipidemias. Therefore, in connection with the early onset of the formation of the pathology of the digestive system against the background of food allergies in childhood, research is of particular importance to improve the diagnosis and treatment of this comorbidity, based on the identification of pathogenesis features, namely, systemic immunity and metabolism with an emphasis on the lipid factor the least studied.

Purpose of the study: Improving the diagnosis and treatment of diseases of the digestive system against the background of food allergies in children of early and preschool age. Research objectives: To study the prevalence and structure of diseases of the gastrointestinal tract against the background of food allergies in children of early and preschool age.

Research methods: For the first time, the prevalence and age-sex structure of functional disorders and chronic diseases of the digestive system against the background of food allergies in children of early and preschool age have been established. It was revealed that the first peak of gastroenterological diseases occurs at 2-3 years of age and is represented by functional disorders of the digestive organs and intestinal dysbacteriosis, the second peak, at 5-6 years, is associated with an increase in the proportion of inflammatory diseases, mainly of the gastroduodenal system. New data have been obtained that skin and gastrointestinal forms of food allergy are associated with the predominant localization of the pathological process in the gastroduodenal system or the small intestine and do not differ from each other in terms of the effect on the severity of the lesion of the gastroduodenal mucosa, the activity of the pathological process in it and the frequency of functional disorders of the digestive organs.

For the first time, the possibility of identifying and predicting the risk of manifestation of food allergy in children of early and preschool age with functional and chronic pathology of the digestive organs was proved using a screening model, which included indicators of biochemical tests - alkaline phosphatase, total cholesterol, SH-groups, α -2- and γ -globulins in blood serum.

Research results: It has been established for the first time that dyslipidemia in children of early and preschool age with chronic diseases and functional disorders of the digestive organs against the background of food allergy can have a non-atherogenic and atherogenic orientation, which is associated with the predominant localization of the pathological process in the gastrointestinal tract, a form of food allergy, and systemic immunity disorders. , the state of antioxidant protection. Priority data have been obtained that atherogenic changes in preschool children with diseases of the digestive system against the background of food allergy are caused by hypercholesterolemia, an increase in the content of very low density lipoproteins (VLDL), pre-P-lipoproteins, lipoprotein (a), a decrease in atherogenic protection with a relative decrease in the level high-density lipoproteins (HDL), most often observed in inflammatory and functional bowel diseases (chronic enteritis, colon dyskinesia), gastrointestinal form of allergy. It has been established that for patients with chronic diseases of the digestive system against the background of food allergy, combined disorders of metabolic homeostasis are characteristic: along with dyslipidemia, the content of coarse proteins (p-, α -2-globulins) increases, the non-enzymatic link of antioxidant protection is weakened with a decrease in the

content of SH-groups, incompleteness processes of glycolysis with the accumulation of pyruvate and the development of ketosis, especially pronounced during exacerbation of the inflammatory pathological process.

For the first time in combined gastroenterological pathology and food allergy in young children, the conjugation of changes in systemic immunity and local defense indicators (decrease in the content of T-lymphocytes in blood serum, as well as the concentration of IgA, SIgA and lysozyme in biological media), activation of the humoral link (increase in the concentration of IgG, IgE, serum CEC) with hypercholesterolemia and accumulation of atherogenic fractions.

The volumes of diagnostic and treatment-and-prophylactic measures for children suffering from chronic diseases of the digestive system and food allergies have been developed and determined. For the first time in diseases of the digestive system against the background of food allergies in the system of therapeutic and preventive measures, the appointment of plant-based therapeutic foods with hypoallergenic and hypocholesterolemic effects has been pathogenetically substantiated, and high clinical and laboratory efficiency has been proven in children of early and preschool age.

Conclusions: The proposed diagnostic algorithm for food allergy in the examination of children of early and preschool age with chronic and functional pathology of the digestive system is aimed at its early detection. The developed computer program for predicting the risk of food allergy manifestation in children with chronic gastroenterological pathology allows automating and accelerating the diagnostic system for 5 biochemical indicators - alkaline phosphatase, total cholesterol, SH-groups, α -2 and γ -globulins i of blood serum. The presence of atherogenic and non-atherogenic dyslipidemia determines the necessary amount of therapeutic measures in children with chronic pathology of the digestive system against the background of food allergies. In the treatment and prevention program for young children with gastroenterological diseases against the background of food allergies, the inclusion of elimination, dietary and treatment and rehabilitation measures is justified, taking into account newly identified pathogenetic mechanisms, which ensures a more favorable course of comorbidity and reduces the risk of further sensitization of the child's body.

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