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### PEDIATRIC GASTROENTEROLOGY AND NUTRITIONAL MEDICINE: PROBLEMS AND PROSPECTS

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**Abstract.** Diseases of the digestive system in children, due to their widespread occurrence, clinical features, high risk of early manifestation and disability, represent a serious medical and social problem. The origins of many chronic diseases of the digestive system in adults, leading to temporary loss of ability to work, lie in childhood and adolescence, that is, the importance of prevention, timely diagnosis and treatment of these diseases at the early stages of their development is obvious.

**Keywords:** diseases of the digestive system, gastroenterology, National Association of Pediatric Gastroenterologists and Nutritionists.

#### INTRODUCTION

*Diseases of the digestive system in children, due to their widespread prevalence, clinical course, high risk of early manifestation and disability, represent a serious medical and social problem, and not only a pediatric one. Forming during periods of the most intensive growth and development of the child, when the physiological functions of the body are most unstable and vulnerable, gastroenterological diseases have a significant share among the key disciplines representing the main aspects of childhood pathology [1].*

#### MATERIALS AND METHODS

*If we add to this that the origins of many chronic diseases of the digestive system of adults, leading not only to temporary loss of ability to work, but also to disability of the adult population, lie in childhood and adolescence, the importance of prevention, timely diagnosis and treatment of these diseases at the early stages of their development becomes obvious. At present, no one doubts the fact that the causes of many chronic diseases of the adult population should be sought in the period of early childhood. The issues of prevention, diagnosis and treatment of the main diseases of the gastrointestinal tract, characteristic of both children and adults, are one of the most urgent tasks of modern pediatrics. Any doctor, especially a district pediatrician and general practitioner, among other important issues, must have a basic understanding of pediatric gastroenterology, since not only the success of treatment, but also the future fate of a sick child depends on the timely detection of the initial manifestations of gastrointestinal diseases, especially during the period of functional disorders, which are reversible [2].*

#### RESULTS AND DISCUSSION

The beginning of the rapid development of gastroenterology in the second half of the 20th century was largely due to and closely related to the development and widespread introduction into clinical practice of new informative research methods, primarily instrumental ones. It is known that at the beginning of the second half of the last century, the pediatric clinic had only the possibility of one-stage (later fractional) study of gastric secretion using thick or thin probes, duodenal three-stage probing and X-ray examination of the gastrointestinal tract from instrumental methods. In this regard, the most common diseases of the digestive system in children were considered to be chronic gastritis and chronic cholecystitis, as well as anomalies and malformations of the gastrointestinal tract - of course, those that could be diagnosed using X-ray research methods. Then functional laboratory

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diagnostics of diseases of the liver, pancreas, and intestines began to develop; the first descriptions of cases of so-called blind aspiration biopsy of the stomach appeared, which laid the foundation for the morphological study of the digestive organs, without which it is now impossible to imagine scientific gastroenterology [3].

A real revolution in the development of gastroenterology in general and pediatric gastroenterology in particular was the possibility of visual and morphological assessment of the condition of the esophagus, stomach, small and large intestines using endoscopic research methods - esophagogastroduodenoscopy and colonoscopy, and the introduction of the echosonographic research method into clinical practice, which made it possible to assess the frequency, prevalence, features of the clinical course and outcomes of many diseases of the digestive system from a completely new perspective, opened up completely new horizons for both invasive and non-invasive technologies, which have now not only improved, but also moved to a fundamentally new level - high-resolution endoscopy, chromoendoscopy, narrow-band endoscopy, fixed capsule endomicroscopy, electrical stimulation of the lower esophageal sphincter; compression and dynamic ultrasound elastography; endoscopic, laparoscopic, catheter endovascular, endorectal, transrectal ultrasound examination (ultrasound), ultrasound colonoscopy. New, exclusive, innovative technologies that have appeared in recent decades have made it possible to completely rethink the essence of many gastroenterological diseases and rethink their role and place in childhood pathology [4].

In parallel with this, the capabilities and information content of immunological, serological, bacteriological, histological and other research methods expanded and increased, which enabled gastroenterologists to decipher the etiological component and pathogenetic essence of children's gastrointestinal pathologies. It turned out that many factors responsible for the occurrence and development of diseases of the digestive organs are of a completely international nature. Among these factors, the most important are a burdened heredity, acute and chronic stress, viral, bacterial and fungal infections. All these factors are closely interconnected and are considered responsible for the occurrence and development of chronic pathology of the digestive system, and their role increases significantly in conditions of environmental and economic disadvantage. Each of the listed "international" factors, in turn, is facilitated by quantitative and qualitative nutritional disorders. Nutrition has long been considered one of the leading causes of the development of digestive system pathology, but the true importance of high-quality balanced nutrition became clear relatively recently, when it was possible to prove that, for example, a lack of protein in the diet of children in the first year of life not only leads to physical health problems in the child, but also largely determines his mental and intellectual development, and an excess of protein threatens not only an increase in the osmolarity of the product and kidney dysfunction, but also contributes to the development of metabolic stress, which after a certain amount of time - years, decades - can transform into metabolic syndrome [5]. According to the World Health Organization, today three quarters of the world's population suffer from diseases, the occurrence and development of which is associated with poor nutrition. The list of diseases associated with intolerance or deficiency of individual components of the diet, the so-called alimentary-dependent diseases, has significantly expanded. Thus, if earlier they included only phenylketonuria, rickets, hypotrophy, celiac disease, lactase deficiency, food allergy, that is, those pathologies for which there is a certain hereditary predisposition, realized or significantly forced against the background of the influence of an alimentary factor, and in which timely dietary correction is vital, now such alimentary-dependent diseases include gluten enteropathy without celiac disease, and paratrophy, and obesity, and disaccharidase deficiency, and food

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hypersensitivity, and hypomicroelementosis, and cyclic acetonemic vomiting syndrome. All these pathologies can proceed latent up to a certain time, develop gradually and make themselves known not obviously and not immediately, but all of them are irreversibly associated with causes of an alimentary nature.

The issues of organizing rational nutrition for healthy and sick children, issues of nutrition for children in organized groups, medical and preventive institutions require further in-depth study; there is a pressing need to abolish dietary measures based on Pevzner's tables and introduce a personalized approach to diet therapy in pediatrics; Further broad discussion is required on issues related to the role and importance of "early life nutrition" (support for the international Early Life Nutrition program), the development of methods for the specific prevention of diseases of the digestive system (viral hepatitis, gastroduodenal pathology), the improvement of methods for endoscopic, radiation and genetic diagnostics of gastroenterological diseases, the introduction into practice of effective drug and non-drug methods of treating bacterial and viral infections, the use of the latest methods of genetic and immunomodulatory treatment methods (hereditary pathology, ulcerative colitis, autoimmune diseases of the digestive system).

### CONCLUSION

Thus, it is necessary to support the continuous improvement of specialized gastroenterological services, pay attention to the high-quality training of primary health care physicians and family doctors in pediatric gastroenterology, support the development of scientific research on the issues of prevention, early detection and treatment of sick children. The role of pediatric gastroenterology in the structure of the most important pediatric disciplines will increase, this section of pediatric science deserves every attention and support, since the effectiveness of pediatric gastroenterological care largely determines the health indicators of not only children, but also adults in Uzbekistan.

### REFERENCES

1. Sherman, P. M., & Hassall, E. (2020). *Pediatric Gastroenterology: Principles and Practice*. Springer.
2. Guandalini, S., Dhawan, A., & Branski, D. (2021). *Textbook of Pediatric Gastroenterology, Hepatology, and Nutrition*. Springer.
3. Thapar, N., Lindley, K. J., & Sandhu, B. K. (2018). *Pediatric Neurogastroenterology: Gastrointestinal Motility and Functional Disorders in Children*. Elsevier.
4. Wyllie, R., Hyams, J. S., & Kay, M. (2016). *Pediatric Gastrointestinal and Liver Disease*. Elsevier.
5. WHO & UNICEF (2022). *Guidelines on Pediatric Nutrition and Malnutrition Prevention*. World Health Organization.