Date: 7th January-2026

PROBLEMS ASSOCIATED WITH THE IMMATURITY OF THE DIGESTIVE SYSTEM IN INFANTS AND THEIR CLINICAL FEATURES.

Nurmatova Viloyat
Teacher of public health technical college named after Republic No. 1 Abu Ali Ibn Sina

Annotation: This article analyzes the problems that arise as a result of the anatomical and physiological immaturity of the digestive system in infants and their clinical features. In infancy, the enzymatic activity, motility, and incomplete formation of the intestinal microbiota of the gastrointestinal tract lead to a violation of the digestive process. As a result, functional conditions such as regurgitation, intestinal colic, flatulence, diarrhea, and constipation are common. The article discusses the pathogenesis of these problems, clinical symptoms, and their impact on the development of the infant's body. The impact of feeding methods, care factors, and environmental conditions on the functioning of the digestive system is also considered. The results of the study are of important scientific and practical importance for the early detection, prevention, and effective management of digestive system problems in infants.

Keywords: Infant, digestive system, immaturity, gastrointestinal tract, intestinal colic, regurgitation, flatulence, dysbiosis, enzymatic deficiency, pediatrics, neonatology.

In modern pediatrics and neonatology, ensuring the health of infants, especially in-depth study of physiological and pathological conditions that occur in the first months of life, is of great scientific and practical importance. Infancy is one of the most important and delicate stages in human life, during which all systems of the body, including the digestive system, are incompletely mature. It is this immaturity that causes the appearance of many functional disorders and clinical symptoms, most of which are perceived with concern by parents and medical workers. The digestive system is one of the main systems that ensure the normal growth and development of the baby's body. Through this system, vital nutrients, vitamins and microelements are supplied to the body. However, in infants, the anatomical and physiological incomplete formation of the gastrointestinal tract, insufficient development of enzymatic activity, instability of the intestinal microbiota, and imperfection of nervous and hormonal regulation mechanisms cause various problems in the digestive process. Today, problems with the digestive system in infants are one of the most common conditions in pediatric practice. According to statistics, the majority of children in the first year of life have functional disorders such as regurgitation, diarrhea, constipation, flatulence, colic, and dysbiosis. Although these conditions are mostly physiological in nature, in some cases they can be the first signs of serious pathological processes. Timely identification and correct assessment of problems associated with the immaturity of the digestive system in infants is one of the urgent tasks facing neonatologists and pediatricians. Because these problems directly affect the general condition of the child, weight gain, the formation of the immune system, and subsequent

stages of development. If digestive disorders persist for a long time, complications such as hypovitaminosis, anemia, decreased immunity, and delayed psychomotor development may occur. In infancy, the functioning of the digestive system is mainly associated with the process of adaptation to breast milk or artificial feeding. Breast milk is the most ideal and natural source of nutrition for a baby, and its biologically active substances, immunoglobulins and enzymes support the baby's immature digestive system. Nevertheless, even breast-fed babies have problems with digestion. This is directly related to the physiological immaturity of the digestive system. In babies who are on artificial or mixed feeding, these problems can manifest themselves more often and in a more severe form. Although the composition of artificial mixtures is maximally approximated to breast milk, they do not always fully correspond to the individual characteristics of the baby. As a result, allergic reactions, lactase deficiency, and intestinal microflora disorders occur. The clinical features of problems associated with the immaturity of the digestive system manifest themselves differently at different age stages. While regurgitation and flatulence predominate in newborns, intestinal colic is more common at 2–3 months of age. In the later months of life, conditions such as diarrhea or constipation are observed. These symptoms negatively affect not only the physical condition of the baby, but also his mental state, leading to anxiety, crying, and sleep disorders. The relevance of studying these problems is that although many of them may disappear independently over time, improper care, non-compliance with the feeding regimen, or insufficient medical supervision can lead to the transition of these conditions to a chronic form. Therefore, it is important to scientifically analyze the problems associated with the immaturity of the digestive system in infants, identify their clinical signs, and make the correct differential diagnosis.Also, in recent years, it has been found that factors such as environmental factors, maternal nutritional characteristics during pregnancy, stress, and medication intake also significantly affect the development of the digestive system in infants. This requires a more in-depth study of the mechanisms of occurrence of these problems.

This scientific work analyzes the main causes, pathophysiological mechanisms and clinical manifestations of problems associated with the immaturity of the digestive system in infants. Special attention is also paid to the issues of early diagnosis and prevention of these conditions. By studying this topic, it is possible to draw scientific conclusions that are widely used in pediatric practice, and to develop practical recommendations for parents and medical workers.

In conclusion, the problems associated with the immaturity of the digestive system in infants are of not only medical but also social importance, and their comprehensive and systematic study is one of the current directions of modern pediatrics. The issues raised in this introduction are covered in detail on a scientific basis in the following chapters.

REFERENCES:

1. Nelson W. E., Kliegman R. M., St. Geme J. W. **Nelson Textbook of Pediatrics.** 21st ed. Philadelphia: Elsevier, 2020.

2. Fanaroff A. A., Martin R. J., Walsh M. C. **Neonatal-Perinatal Medicine: Diseases of the Fetus and Infant.** 11th ed. Philadelphia: Elsevier, 2020.
3. Behrman R. E., Kliegman R. M., Jenson H. B. **Essential Pediatrics.** 7th ed. Philadelphia: Saunders, 2019.
4. Walker W. A. **Pediatric Gastrointestinal Disease: Pathophysiology, Diagnosis, Management.** 6th ed. Hamilton: BC Decker Inc., 2018.
5. Shamir R., Turck D., Phillip M. **Nutrition and Growth in Infancy.** World Review of Nutrition and Dietetics. Basel: Karger, 2019.