



Clinical and laboratory effectiveness of various types of feeding in children of the first year of life with AII

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ABSTRACT

Acute intestinal infections are a large group of infectious diseases of various etiologies caused by various microorganisms and viruses (salmonella, yersinia, shigella, campylobacteria, rota and noroviruses), with a predominant lesion of the gastrointestinal tract.

Keywords:

Acute intestinal infections, microflora, breast milk, exciosis.

Relevance

Acute diarrheal diseases occupy one of the leading places in pediatric pathology, including in the conditions of Uzbekistan, the natural and climatic features of which contribute to the widespread spread of intestinal infections, including shigellosis, especially among children under 14 years of age. Acute intestinal infections (AII I) occupy one of the first places in the Republic of Uzbekistan in terms of epidemiological significance, socio-economic damage. The development and spread of AII is due to such factors as the quality and quantity of drinking water, the nature and conditions of water use, socio-economic condition, sanitary and hygienic education of the population. However, as recent epidemiological studies have shown, the percentage of children who are naturally fed is catastrophically decreasing.

Another myth about breastfeeding: if it is necessary to exclude dairy for intestinal infections, then you can not breastfeed.

Currently, only 30% of the total number of children at the age of 3 months remain breastfed. Thus, despite all the efforts of pediatricians, most of the Russian babies are deprived of mother's milk and are forced to be artificially fed. If the mother does not have milk, the child should receive a substitute for it. Breastfeeding is the best choice for healthy growth and development of newborns and infants.

Optimal breastfeeding in the first two years of a child's life, and especially exclusive breastfeeding during its first six months, can have a greater impact on the survival of children with the potential to prevent 12-15% of infant mortality before the age of five. Breastfeeding also forms protection against infectious diseases such as diarrhea, respiratory tract diseases, and also strengthens the child's immune system and helps protect him from chronic diseases in the future. While the benefits of breastfeeding are beyond doubt,

the worldwide rate of exclusive breastfeeding is still only approximately 37%. Initiation of breastfeeding is widespread in Uzbekistan, but the level of exclusive breastfeeding is low and amounts to 26% "Multi-indicator cluster study" 2006)

Continued breastfeeding after six months to two years of age or more, supplemented with safe and appropriate supplemental nutrition, is the most optimal feeding of the child. In the Republic of Uzbekistan, it was adopted by the Legislative Chamber on October 9, 2019. Approved by the Senate on October 11, 2019. The purpose of this Law is to regulate relations in the field of breastfeeding support, as well as to ensure compliance with the established requirements for food for infants and young children.

Despite this, as studies have shown in some regions of Uzbekistan, even in the first months of life, unadapted dairy products (cow's or goat's milk, kefir, B-mixtures) are widely used, which leads to the development of iron deficiency, anemia, decreased immune status and sensitization to food allergens. Breastfeeding is recommended by doctors even for women infected with staphylococcus, because the body produces antibodies to protect the mother. And through milk, the child is protected.

And artificial milk mixtures are intended for children who, for some reason, cannot be fed with mother's milk. For example, babies suffering from allergies, babies in orphanages born to HIV-positive parents GW decreases at the age of 3 to 6 months. 42% of mothers breastfeed only up to three months. Further, 58% of nursing mothers begin to give their children some kind of drink, cow's milk or porridge. The issues of diet therapy of severe forms of AII are far from being resolved, in particular, the place of semi-elemental mixtures and their effect on the course of the disease, the terms of rehabilitation of the patient are not shown. This indicates the need to take into account the premorbid background, etiology and pathogenesis of the disease when choosing nutrition for children of the first year of life with acute intestinal infections. Generally accepted standards of

dietary therapy tactics for children of the first year of life with acute intestinal infections have not been developed at present. The purpose of this work is to substantiate the optimal tactics of diet therapy in children of the first year of life

Material and met

hods of research. The work was carried out in the department of pediatric acute diarrhea in the clinic of the Republican Specialized Scientific and Practical Medical Center of Epidemiology, Microbiology, Infectious and Parasitic Diseases, I examined 60 children aged 6-16 months who received various types of feeding (exclusively breast, mixed, exclusively artificial). Daily clinical observation included an assessment of the general condition of the baby and its internal organs, physical development, the state of health of mothers was taken into account. When observing children, the presence of regurgitation, flatulence, regularity and independence of the stool, its characteristic color, consistency, the presence of mucus, the number of leukocytes were recorded. All children underwent a coprological study and determination of the pH of the intestinal contents on the 1st - 4th day of treatment in a hospital and on the 1st day of treatment in a hospital, a bacteriological study and determination of the pH of the intestinal contents.

Results:

Those who were exclusively breastfed, there was flatulence and regurgitation until the second day of the disease. In the future, the frequency of flatulence decreased. The risk of moderate to severe dehydration was low. In the general analysis of feces, the number of white blood cells normalized faster than in children who were artificially fed. In children on artificial feeding, flatulence was rare, however, with mixed feeding, violations of the regularity of the stool appeared and increased ($p < 0.01$ and $p < 0.001$, respectively), which was due to its more liquid consistency ($p < 0.05$), which was accompanied by fever, which was prolonged (6.0 ± 1.6). The phenomena of general intoxication were combined with

exicosis I – II. And also worried about intestinal colic. The mucus was significantly elevated. In this regard, work is underway to create mixtures, the feeding of which would be accompanied by a change in the characteristics of the stool and intestinal microflora with their approximation to those during breastfeeding. According to a coprological study, neutral fat and fatty acids were determined in 45.6% of the examined children aged 6-8 months of life. During the observation, the frequency of their detection did not change, which was due to the functional immaturity of the gastrointestinal tract.

There was no significant difference in the frequency of detection of neutral fat and fatty acids in coprograms, depending on the nature of feeding.

Conclusions:

Feeding with female milk should be maintained, regardless of diarrhea. This is due to the fact that lactose in breast milk is well tolerated by children with diarrhea. In addition, women's milk contains epithelial, transformable and insulin-like growth factors. These substances contribute to a faster recovery of the intestinal mucosa of children. Also, women's milk contains anti-infective factors such as lactoferrin, lysozyme has bactericidal activity, violating the integrity of the bacterial envelope, Ig And immunoglobulin IgA envelops the intestinal mucosa, throat thereby preventing the penetration of viruses and bacteria, bifidum factor through it. oligosaccharides (about 130 species)- able to inhibit the binding of toxins of viral and microbial origin with intestinal epithelial cells. They are prebiotics, stimulating the growth of beneficial intestinal microflora.

With impaired absorption of carbohydrates and the development of secondary lactase deficiency against the background of viral, watery diarrhea, there is anxiety, bloating, regurgitation, splashing foamy stools after each feeding. At the same time, the early introduction of adapted mixtures into the diet that contain lactose of cow's milk can worsen the child's condition and increase the duration

of diarrhea. In addition, cow's milk contains proteins that allergize the child's body.

At the present stage, the percentage of children who are naturally fed is very low: only 11.8% of children receive breast milk for a year or more, 45.6% of children switch to artificial feeding during the first three months of life, and 8.1% of children are artificially fed from birth. At the same time, 10.3% of children under 6 months and 60.7% in the second half of life receive unadapted mixtures.

With the early transition to artificial feeding, a higher frequency, severity of the course of acute respiratory infections and acute respiratory infections, the percentage of hospitalizations for both infectious and somatic pathology, a higher morbidity index, less harmonious development with a tendency to overweight were revealed. It is not recommended to use soy-based milk mixtures in the acute period of diarrhea. Hypersensitivity of the intestinal mucosa of children to soy protein in diarrhea has been established. This increases the risk of developing protein enteropathy.

Optimal in the diet therapy of AII in children of the first year of life is natural feeding, and in its absence - the differentiated appointment of therapeutic mixtures, taking into account the course, pathogenesis and complications of the disease.

Recommended:

- with uncomplicated AII, use therapeutic adapted fermented milk mixtures;
- in cases of AII accompanied by lactase insufficiency - free and low-lactose mixtures;
- in severe forms of AII, semi-elemental mixtures based on protein hydrolysates.

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