FEATURES OF SOME SMALL INTESTINE DISEASES IN CHILDREN LIVING IN THE ARAL REGION

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Abstract. *Malabsorption syndrome combines a large number of pathological conditions, which are based on a congenital or acquired defect in the breakdown and (or) absorption of various food ingredients. The main causes of the development of malabsorption syndrome in most cases are due to insufficiency of intestinal and pancreatic enzymes, substrate-binding proteins, disorders of intestinal digestion, gastrointestinal motility, atrophy of intestinal villi. Traditionally, malabsorption syndrome includes, first of all, conditions manifested by dyspeptic disorders (diarrhea, disturbances in the consistency and volume of stool, vomiting, flatulence, loss of appetite) with subsequent exhaustion and all diseases of the small intestine occur as SMA.*
Keywords: *children, small intestine, in the Aral Sea region.*

Actuality. One of the pressing problems in modern pediatrics is diseases accompanied by malabsorption syndrome (MAS). Currently, the differential diagnosis of diseases of the small intestine of infectious and non-infectious nature presents significant difficulties due to the common clinical masks of the disease in the acute period of the disease and the trigger role of infections in the development of chronic gastroenterological pathology. Often, the first diagnosis of SMA is made in an infectious diseases hospital, where children with enterocolitis and food toxic infections of various natures are hospitalized, which requires infectious disease doctors to have in-depth knowledge of the algorithm for differential diagnosis of diseases of the small and large intestines [1]. Progress in modern clinical gastroenterology is largely ensured by the effective use of the latest technical means and methods introduced into medicine in recent years (A A Baranov, 2002). Diseases of the small intestine have the onset of hereditary and acquired genesis and occur with malabsorption syndrome, which causes concern not only among pediatricians, but also among gastroenterologists and pediatric surgeons, due to their significant prevalence, the tendency to progression of the pathological process, especially in children of older age groups, frequent relapses due to insufficient effectiveness of ongoing rehabilitation measures (A.I. Parfenov, 2004; A.A. Baranov, 2009; C.Catassy, 2014). Only 25% of children at the onset of the disease have the classic triad - abdominal pain, diarrhea syndrome and weight loss. SMA is not only a problem of the gastrointestinal tract (GIT), but can rightly be considered a systemic disease. Malabsorption syndrome combines a large number of pathological conditions, which are based on a congenital or acquired defect in the breakdown and (or) absorption of various food ingredients [4-6].

The main causes of the development of malabsorption syndrome in most cases are due to insufficiency of intestinal and pancreatic enzymes, substrate-binding proteins, disorders of intestinal digestion, gastrointestinal motility, and atrophy of intestinal villi [1,4]. Traditionally, malabsorption syndrome includes, first of all, conditions manifested by dyspeptic disorders (diarrhea, disturbances in the consistency and volume of stool, vomiting, flatulence, loss of appetite) followed by exhaustion, and all diseases of the small intestine occur as SMA [3-6]. However, the improvement of laboratory diagnostic methods has expanded the understanding of the manifestations of SMA and confirmed the diversity of its clinical forms [6, 8]. In some cases,

malabsorption may be implicit, manifested by pathology of other organs (liver, lungs) and systems (anemia, growth retardation in atypical forms of celiac disease). Due to the disruption of the intake of macro- and micronutrients into the child's body, "deficiency" conditions develop, the clinical manifestations of which, in combination with dyspeptic symptoms typical for SNCV, create difficulties for the timely diagnosis of the pathological process, worsen the prognosis and, in some cases, contribute to long-term impairment of health and early disability of children [1.5].

Purpose of the study. To study the features of the clinical course of diseases of the small intestine in children accompanied by malabsorption syndrome living in the Aral Sea region.

Materials and methods. We examined 100 young children living in the Aral Sea region (Khorezm region and the Republic of Karakalpakstan) with diseases of the small intestine. All children underwent the following examination methods: clinical and anamnestic, laboratory and instrumental, parent interviews, analysis of data from primary medical documents.

Statistical processing of the obtained results was carried out using application programs for statistical data processing Statistica® version 6.0. The significance of differences between the compared groups was assessed using Student's tests. Differences in the compared values were considered statistically significant at $p<0.05$.

Results and discussions. According to the results of this study, among the examined children from the Republic of Karakalpakstan there were 46 patients, and from the Khorezm region 54. By age category; from 0-1 year 52%, 1-3 years 21%, 3-7 years 19%, over 7 years 8%, of the total number of children, boys were 61%, and girls - 39%, which corresponds to the literature data on the predominance gastrointestinal pathology among males (Figure No. 1).

Among the main complaints in children, dyspeptic changes (abdominal pain, diarrhea, vomiting) were often observed. In both groups, abdominal pain was observed in 100%, in patients it was combined with dyspeptic symptoms: nausea and vomiting - in 75%, flatulence - in 62%, diarrhea - in 91%, constipation - in 9% of children.

The presence of clinical manifestations was established: in the main group up to one bowel movement per day and constipation was in 17%, and in the control group they were not observed. If it is considered normal for children to have 1-3 bowel movements per day, in the main group it was 33%, and in the control group - 92.5%.

Diarrhea up to 4-7 times a day was observed in 21% of children in the main group and in 3.7% of the control group. More than 7 times a day was observed in 4% of the main group, but this figure was not observed in the control group.

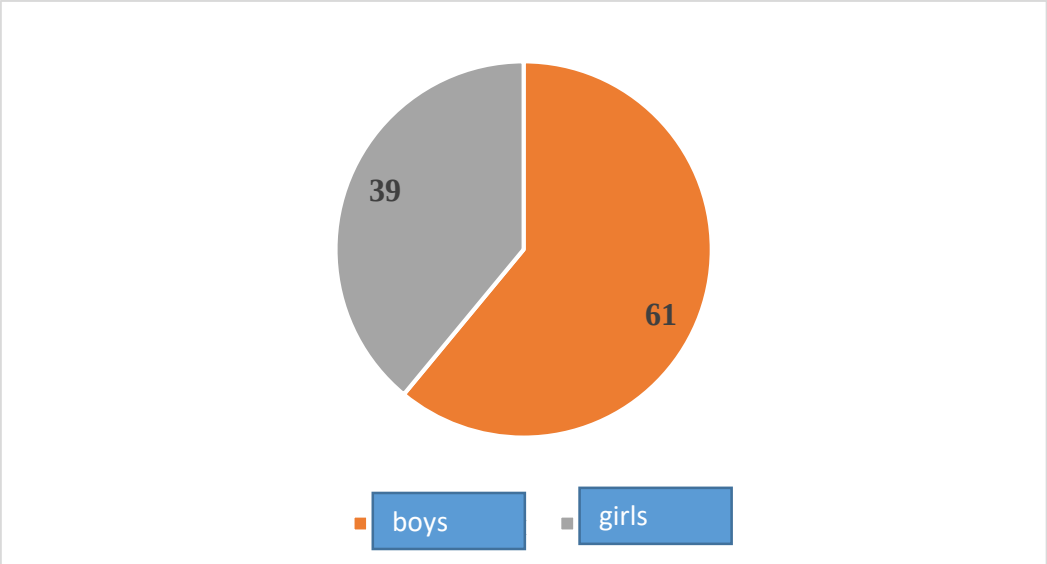
According to the consistency of stool, loose stools were observed in the main group 15%, and 96.2% in the control group, mushy stools in the main group 37%, in the control group 3.7%, with mucus in the main group 15%, in the control group 55.5%.

In the main group, the stool variable was 6%; in the control group it was not observed. In diseases of the small intestine, disturbances in physical development in children may additionally be associated with the use of restrictive diets that aggravate the deficiency of macro- and micronutrients; development of intestinal dysbiosis during treatment of the underlying disease, with subsequent disruption of the metabolic function of the intestinal microflora; malabsorption syndrome; use of medications.

The main group included children diagnosed with chronic disease. enterocolitis (11%), celiac disease (27%), allergic enterocolitis (17%), intestinal cystic fibrosis (9%), disaccharidase deficiency (2%) and celiac disease (27%), gastroenteritis (9%).

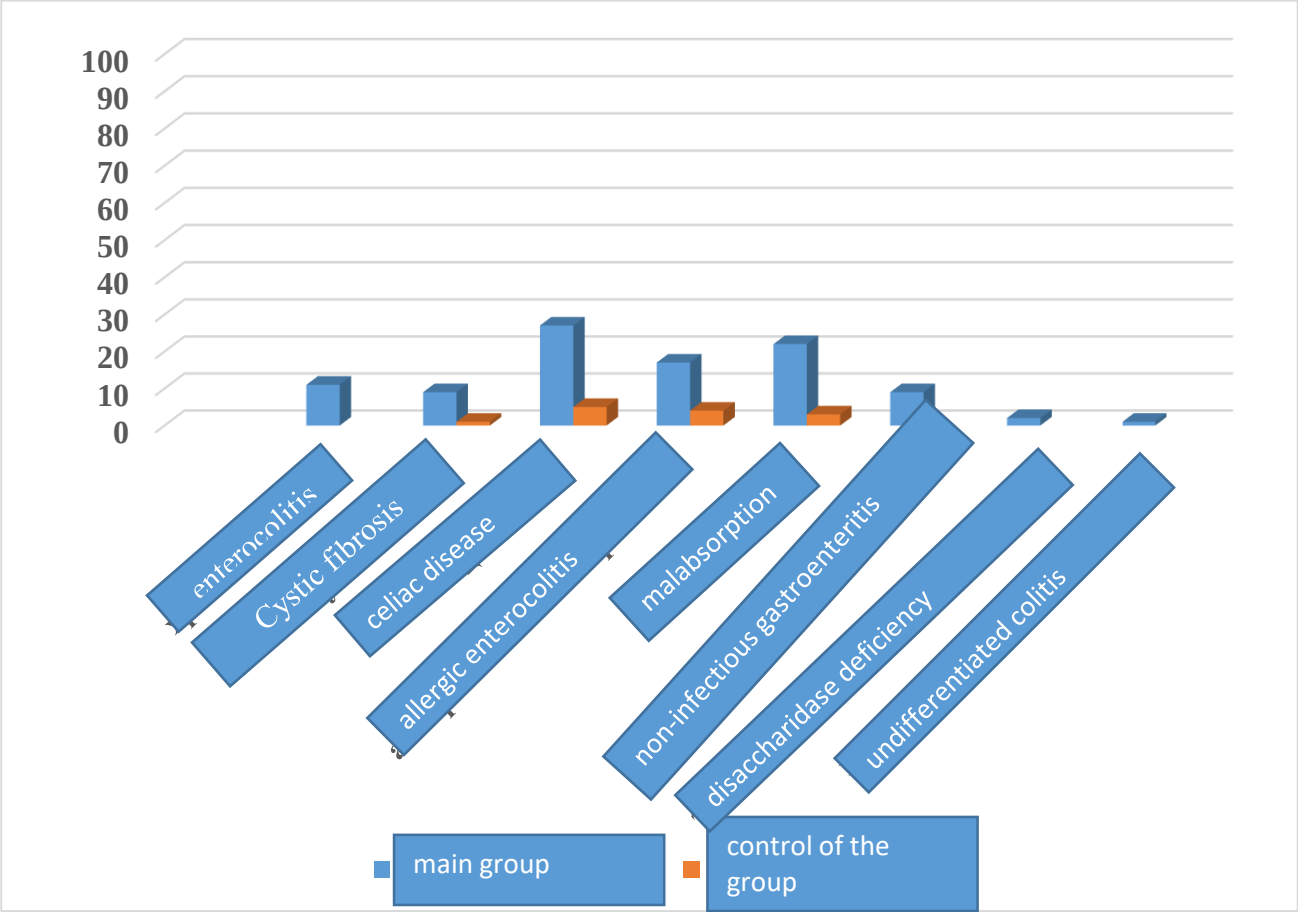
Figure 1

Distribution of children by gender with small intestinal disease



The control group consisted of children from the city of Tashkent who were treated in the gastroenterological department of the Republican Medical Research Center with a diagnosis of cystic fibrosis (3.7%), celiac disease (18.5%), malabsorption (11.1%), allergic enterocolitis (14.8%) (Figure No. 2).

Figure 2 ***Distribution of children by pathology***



It has been established that the main factors in the development of small intestinal pathology are influenced by the mother's obstetric and somatic history - the pathological course of pregnancy and childbirth. Among the examined children, when interviewing mothers, it was revealed that the first child in the family was 32%, the 2nd child - 28%, the 3rd child - 27%, the 4th child - 8%. During the analysis, it was found that the pathological course of pregnancy was more common in mothers of children who had 1 child and the average age of the mother was 17.2 ± 2.5 in the main group of mothers and in the control group 21.2 ± 3.5, and Threatened miscarriage was diagnosed in 40.0% of mothers in the main group, in contrast to 15.0% of mothers in the comparison group, $p<0.05$. Anemia of mild and moderate severity was also more often diagnosed in mothers of children in the main group - in (33.3%) and (15.0%) in contrast to mothers of children in the comparison group - in (6.0%) and (2.0%).), $p<0.05$, $p<0.01$. In mothers of children in the main group, extragenital pathology was more often recorded than in mothers of children in the comparison group - respectively (41.6%) and (16.6%), $p < 0.001$. The burden of heredity for gastroenterological and allergic pathologies in the main group was 45.6% and in the comparison group 26.7%. Of the total number of children, the high incidence of concomitant pathology was in patients of the main group, amounting to; PPCNS 14%, atopic dermatitis 34%, rickets 47%, secondary immune deficiency conditions 9% - these children belong to the group of frequently ill people.

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65% of children. Conducted anthropometric studies of the physical development of children, in the main group harmonious physical development was 33%, mild degree of protein-energy deficiency - 16%, moderate degree - 21%, severe degree - 18%, overweight - first degree - 6%, excess second degree body weight was 4%, obesity - 2%, while in the control group harmonious development was not determined, the average degree of protein-energy malnutrition was 11%, overweight - 10%, obesity - 6%.

Conclusion: The main manifestation of malabsorption syndrome was dyspeptic syndrome of protein-energy malnutrition, which contributed to the disharmonious development of children. All children had rickets, anemia, polyhypovitaminosis, and this contributes to low immune reactivity of the body and a high incidence of acute viral respiratory and intestinal infections.

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