

FEATURES OF CLINICAL MANIFESTATIONS OF ACUTE DIARRHEAL DISEASES IN CHILDREN DEPENDING ON AGE

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Abstract. *Acute intestinal infections continue to be the most common diseases of childhood after acute respiratory viral infections and are relevant for pediatrics, leading to the development of severe forms of the disease and affecting the further development of the child. [1,2,3]. Among the etiological factors of acute diarrhea, the leading place is occupied by diseases of viral etiology, which accounted for 50%, and the most significant are rotaviruses (36%), noroviruses (17%) [4,5]. Bacterial diarrhea (12%) is dominated by Salmonella (9%), Shigella (5%), Campylobacter (5,5%), Escherichia and opportunistic bacteria, and in 50-80% of cases, acute diarrhea (AD) in children remains etiologically undeciphered [6,7].*

One of the areas that requires in-depth study is the assessment of the clinical course of AD in young children, depending on the age and outcome of the disease.

Keywords: *gastroenterocolytic, enterocolitic, escherichiosis, hemocolitis, Hemocolitis, exicosis.*

The aim of the study was to analyze the clinical course of acute diarrheal diseases (ODD) in young children.

Materials and methods. A retrospective study of the case histories of 100 sick children under the age of 3 years, patients with ODD, hospitalized in the clinical hospital of RSSPMCEMIPD in Tashkent. Of the 100 patients, 48% were under 1 year of age and 52% were between 1 and 3 years of age. Gastroenteritic variant of the disease course were observed in 3% of patients, enteritis – in 1%, gastroenterocolytic – in 83% and enterocolitic – in 13% of patients were observed. Patients were divided according to severity as follows: moderate form – 66, severe - 44 and divided into two groups: Ist group - 66 patients with moderate form (30 of them – children under 1 year, 36-children from 1 year to 3 years), IInd group – 44 patients with severe form of the disease (of these, 24 are children under 1 year old, 20 are from 1 to 3 years old).

The examination included the analysis of standard clinical and laboratory parameters. The clinical examination included the collection of anamneses, general examination of the patient. Each patient underwent a general analysis of blood, urine and feces, as well as a bacteriological test of feces, conducted on the first day of admission to the hospital. Statistical analysis of the obtained results was carried out on the basis of the data analysis package included in Microsoft Excel. To identify significant differences between the average values of different populations of initially compared groups of patients, the Student's criterion was used.

Research results and their discussion.

In the etiological structure of AD, among the decoded infections, salmonellosis accounted for 35%, dysentery-18%, and escherichiosis – 8%. 31 children were admitted to the hospital in the first 2 days after the onset of the disease, 39 children -on 3-4 days, 30 children were admitted to the hospital later (after 5 days of illness). In more than half of the patients (59%), the disease began gradually, and 41% of children had acute and subacute onset of the disease. The main route of infection was food (69%). In the anamnesis, 80% of the examined children had a burdened

premorbid background, which causes the severity of their condition. The following concomitant diseases were identified: anemia-80%, rickets-48%, hypotrophy-22%, perinatal CNS damage – 63%, bronchitis, bronchopneumonia-26%, ARVI-5%. The number of children under 1 year and from 1 year to 3 years with a burdened premorbid background did not differ statistically significantly.

A study of the nature of feeding showed that 58% of patients were on mixed and early artificial feeding. The disease was accompanied by hyperthermia (in 81% of cases, an increase in body temperature of more than 38°C, of which 11% - 39,1°C and above) with nausea and vomiting in 93% of patients. Hepatomegaly was detected in 45% of patients. There was an intense local syndrome: abdominal pain (in 94% of cases) lasting more than 5 days in 20% of patients, flatulence (58%), multiple watery green stools with an admixture of mucus (more than 6 times a day – in 46% of cases) lasting more than 8 days in 31% of children. Hemocolitis was observed in 18% of children, with a duration of more than 3 days in 10 % of patients. The disease with the development of dehydration of I, II degrees was noted in 55%, in 34% of young patients there was a development of toxicosis lasting 3,9±0,8 days.

We conducted a comparative study of the differences in clinical parameters depending on the age of patients (Table 1).

Table 1

Clinical characteristics of acute diarrhea in children

Symptoms	Children under 1 year of age (n= 48)	Children from 1 to 3 years of age (n= 52)	R
Fever:	48 (100%)	52 (100%)	
Febrile body temperature	37 (77%)	44 (85%)	
Intoxication	45 (94%)	48 (92%)	
Dehydration	27 (56%)	28 (54%)	
Vomiting	46 (96%)	46 (88%)	
Abdominal pain	42 (88%)	52 (100%)	<0,05
Flatulence	31 (65%)	27 (52%)	<0,05
Liver enlargement	23 (48%)	22 (42%)	
Stool: frequency per day	7,1 ± 0,5	8,4 ± 0,7	
Hemocolitis	7 (14%)	11 (21%)	
Average duration, days:			
intoxication	4,66 ± 0,2	5,1 ± 0,4	
fever	3,55 ± 0,2	4,1 ± 0,3	
diarrhea	4,6 ± 0,2	6,3 ± 0,3	<0,001
Bed-days	7,22 ± 0,3	8,3 ± 0,6	

There were no significant differences in the main clinical symptoms: fever, vomiting, hemocolitis, and the appearance of intoxication symptoms. A significant difference was obtained only in the duration of persistence and severity of the intestinal syndrome (abdominal pain, flatulence, duration of diarrhea). Abdominal pain did not have a clear localization and was always accompanied by rumbling along the bowel. The duration of the main clinical symptoms in the age groups was different.

It should be noted the frequency of unfavorable course of the disease. Thus, an acute smooth course with complete clinical recovery was observed in 85% of children. In 15% of children, the disease had a complicated course: 9% - pneumonia, 3% - bronchitis, 1% - neurotoxicosis, 2% of patients developed infectious and toxic shock. We did not observe a prolonged course of the disease.

The duration of fever and intoxication did not differ significantly. The duration of diarrhea was significantly longer in children older than 1 year – $6,3 \pm 0,3$, and in children younger than 1 year – $4,6 \pm 0,2$ days ($p < 0.001$). The duration of detection of blood in the stool was comparable ($2,9 \pm 0,5$ and $2,5 \pm 0,6$ days, respectively), although we observed hemocolitis in children older than one year 1,5 times more often than in children under one year.

The results of laboratory data showed that in the hemogram in 51% of cases - leukocytosis, of which in 20 % of cases was accompanied by rod neutrophilosis, in 28% - acceleration of ESR, in the urinogram in 8% of patients, proteinuria and microhematuria were found. Analysis of coprological studies showed that all children had neutral fat, digested and undigested fiber, starch, pathological impurities in the feces (mucus, white blood cells) in 59%, and red blood cells in 18%. All children admitted to the hospital received complex etiopathogenetic therapy and were discharged home with clinical recovery and normalization of blood tests.

Thus, acute diarrheal diseases remain relevant. Analysis of clinical and laboratory features of acute diarrhea in children of different age groups showed that diarrheal diseases in the vast majority of cases (83%) occurred with the involvement of the small intestine and colon in the pathological process mainly according to the gastroenterocolitic variant, and moderate and severe forms of the disease with the development of complications in 15% of cases are in the lead. The disease occurred with a pronounced intoxication syndrome, a temperature reaction, and an intense local syndrome. In the examined groups of children, depending on the age of patients in the acute period of the disease, no reliable clinical signs were found, except for the duration of preservation and severity of the intestinal syndrome.

Conclusions:

1. Acute diarrhea in young children occurs mainly according to the gastroenterocolitic variant (83%) with a predominance of moderate forms of the disease, hemocolitis was observed in 18% of cases.

2. In the examined groups of children, depending on the age of patients in the acute period of the disease, a significant change in the duration and severity of intestinal syndrome (abdominal pain, flatulence, duration of diarrhea) was revealed.

3. More pronounced manifestation and prolonged clinical symptoms were observed in children older than 1 year. So, the duration of diarrhea was 1,3 times more frequent, the development of hemocolitis-1,5 times more often compared to children under one year.

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