CLINICAL EPIDEMIOLOGY OF INTESTINAL INFECTIONS AND YERSINIOSIS

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Abstract: Yersiniosis is a disease caused by several types of enteropathogenic Yersinia. It has an alimentary transmission route and manifests clinically with CNS intoxication, dyspepsia, tonsillitis, lymphadenopathy, rash, and organ damage in various organs. Data from the examination, diagnosis, and treatment of 120 children aged 6 months to 14 years suffering from acute diarrheal disease from 2021 to 2023 were analyzed. While they formed the main study group, 40 children were examined as a control group. All observed children underwent extensive continuous examinations, including clinical, laboratory, biochemical, virological, and immunological studies. Special attention was paid to their complaints, past and concomitant diseases, causes of illness, duration of illness, and results of diagnostic and early therapeutic measures.

Keywords: *Yersinia enterocolitica, source of infection.*

Relevance: The study showed that 250 children with acute diarrhea were retrospectively analyzed, of whom 120 children were analyzed prospectively, forming the main group in our study. Among our main group, 78 (65%) were children living in rural areas, while 42 (35%) were children living in urban areas.

In studying the etiology of the disease in 120 patients with controlled intestinal infections, the cause of acute diarrhea remained unidentified in some cases. Among the identified cases, there were 34 cases of intestinal yersiniosis, 2 cases of salmonellosis, 2 cases of shigellosis, and 2 cases of rotavirus infection.

Objective: To study the epidemiological and clinical manifestations, as well as the laboratory diagnosis of yersiniosis.

Materials and Methods: 120 children under observation were divided into three subgroups according to age to study the nature of the disease:

Results and Discussion:

- Subgroup 1 included 91 (75.8%) children aged 6 months to 3 years,
- Subgroup 2 included 24 (20%) children aged 4 to 11 years,
- Subgroup 3 included 5 (4.2%) children aged 12 to 14 years.

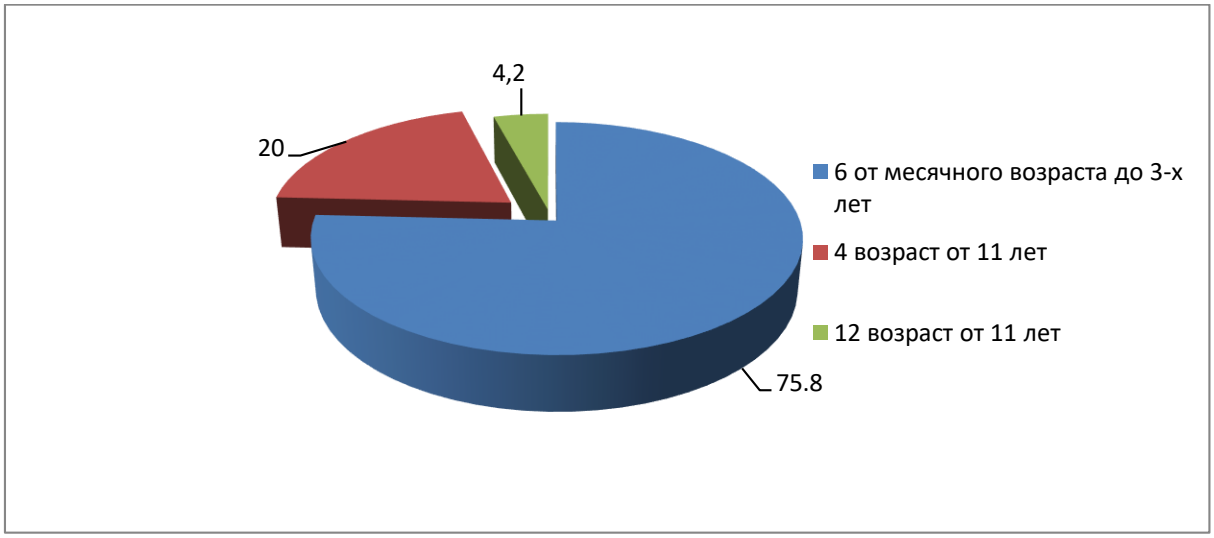

Figure 1. Distribution of children with intestinal infections by age

Figure 1 presents the distribution of study materials considering the age and gender of the pediatric patients under observation.

As seen in Figure 1, boys accounted for 44% of the examined children, while girls made up 66%. It is noteworthy that in all studied age groups, regardless of gender, the total number of girls predominated.

Explaining this pattern is much more challenging, as the underlying cause is related to the biological and gender-specific characteristics of the pediatric body, which are not yet fully understood. At the same time, more than half (75.8%) of the examined children affected by intestinal infections were in the age group of 6 months to 3 years (Figure 1).

It should be noted that this can be explained by the anatomical, physiological, pathomorphological, and both local and general characteristics of the body, which are typical for children affected by yersiniosis.

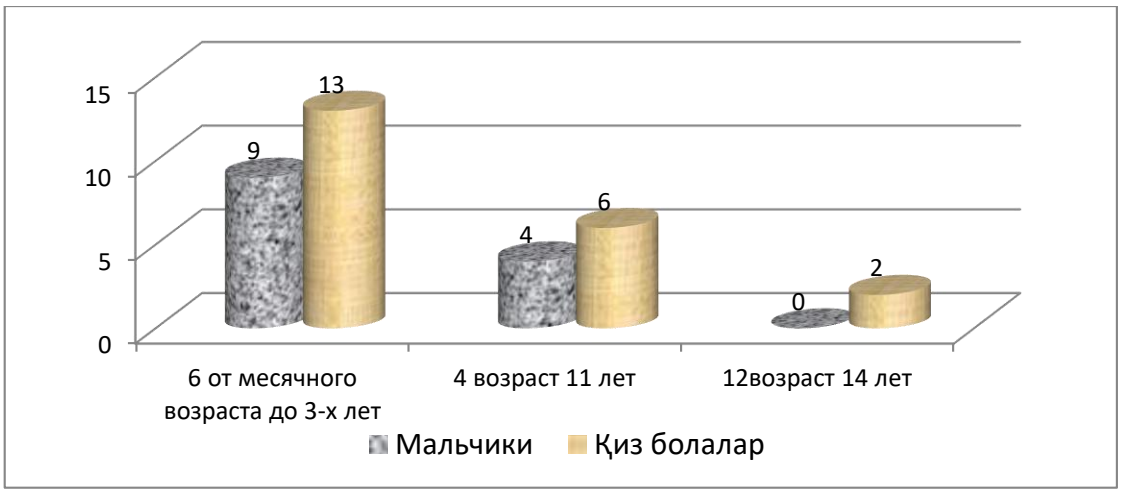

Figure 2. Distribution of children affected by yersiniosis by age and gender

When studying comorbidities in children with yersiniosis (Figure 2), 89 (74.1%) patients were found to have anemia, rickets, and hypotrophy. Among them, rickets and hypotrophy were observed in 41 (34.1%) cases, hypotrophy and anemia in 28 (23.3%) cases, and exudative-catarrhal diathesis in 23 (19.1%) cases. Anemia was diagnosed in 19 (15.8%) children, while malnutrition was also noted in 19 (15.8%) cases. Paratrophy was found in 16 (13.3%) children, hereditary diseases in 12 (10%), chronic tonsillitis in 5 (4.2%), and NVSAD carriage in 5 (4.2%) cases.

Among the 34 children with controlled yersiniosis, 18 (53.0%) were diagnosed with gastroenteritis, 8 (23.5%) with enteritis, and 8 (23.5%) with enterocolitis. Clinical observations provided substantial evidence that the course of yersiniosis most commonly manifests as gastroenteritis.

Conclusions:

The variety of intestinal infections, their complications, and clinical manifestations are of particular interest to infectious disease specialists and pediatricians. This diversity enables rapid diagnosis and the correct selection of pathogenetic treatment approaches.

As shown in Table 2.5, among 34 children affected by controlled yersiniosis, 3 (8.8%) had a moderately severe course of the disease, while 24 (70.6%) suffered from severe forms of the disease. The fact that the severity of the primary illness was due to the slowed protective processes of the child's body serves as an essential finding.

Among the 120 children suffering from controlled acute diarrheal disease, 34 (20.6%) had a mild course, 16 (8.8%) had a moderately severe course, and 80 (70.6%) experienced a severe course of the disease.

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