CLINICAL CHARACTERISTICS IN PATIENTS WITH INFECTIOUS MONONUCLEOSIS

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ABSTRACT

To conduct this study and obtain reliable results, it is necessary to select a certain number of studies, the object of study and the subject, in addition, for statistical analysis, the number of observations (n) should be sufficient. For this reason, we considered it appropriate to dwell on the research materials in more detail.

Keywords: infectious mononucleosis, temperature, symptomatic course.

INTRODUCTION

Infectious mononucleosis is an acute anthroponotic viral infectious disease characterized by fever, generalized lymphadenopathy, tonsillitis, damage to the liver and spleen with changes in the immune status [1,3]. Infectious mononucleosis is recorded mainly in children and young people, more often in males. The disease occurs worldwide in the form of sporadic cases. Epidemics are very rare. The maximum incidence occurs in the cold season [4,6]. A special place among herpesviruses is occupied by an infection caused by the Epstein-Barr virus (EBV) infection, which is one of the most relevant and common diseases in modern pediatrics and pediatric infectology, as well as among the adult population [5,9]. One of the most common forms of EBV infection is infectious mononucleosis (IM) [8,11,2]. Immune disorders in infectious mononucleosis are complex in nature, they concern both the cellular and humoral levels, entail a aggravation of the course, an increase in the complications of the disease, which reflects the essence of infectious mononucleosis as a disease of the immune system [10,12]. An analysis of the state of the immune status in relation to changes in the cytokine spectrum in children with infectious mononucleosis has not yet been carried out in the literature available to us, which served as the basis for setting the goal of the study.[13,14]

THE PURPOSE OF THE STUDY

In this scientific work, research was carried out in two strategic directions. In each of these areas, the epidemiological aspects of one pathological process were studied - damage to the upper respiratory tract and other vital organs as a result of progressive immunodeficiency and the development of aggravated complications.

MATERIALS AND RESEARCH METHODS

The data of the examination, diagnosis and treatment of 120 children aged 3 to 18 years with infectious mononucleosis for the period 2019–2022, which made up the main study group, were analyzed, and 40 children were examined as a control group. All sick children underwent an examination, including clinical and laboratory, biochemical, virological and immunological studies. Particular attention was paid to their complaints, previous and concomitant diseases, premorbid type, causes of the disease, duration of the disease, nutrition of the child, and early

treatment measures. In order to study the immunological reactivity of the child's body in dynamics, 44 children took part in this study, of which 22 children with infectious mononucleosis received conventional treatment, and 22 children with infectious mononucleosis received conventional and immunostimulating therapy.

RESEARCH RESULTS

According to the results of the study, 500 children with infectious mononucleosis were retrospectively analyzed, of which 120 were analyzed prospectively, which made up the main group of our study. The main group consisted of 59 (49.1%) children living in rural areas, and 61 (50.9%) children living in urban areas. To study their characteristics, 120 observed children were divided into 3 small groups depending on age: the 1st subgroup from 3 to 7 years old consisted of 34 (28.3%) children, the 2nd group from 8 to 12 years old - 70 (58.3%) of children, in the 3rd group from 13 to 18 years old there were 16 (13.4%) children.



Figure 1 shows the distribution of children under observation by age and gender.

Figure 1 shows that 65% of the examined were boys, 35% were girls. It should be noted that in all the studied age groups by gender, the number of boys prevailed in the total number of children. It is very difficult to explain this pattern, the reason for this depends on the biological sexual characteristics of the human body, which are not yet clear to us. At the same time, patients with infectious mononucleosis aged 8 to 12 years make up more than half of the examined - 58.3% (Fig. 2.). It should be emphasized that this can be explained by the anatomical, physiological, pathomorphological, and local and general features of the body characteristic of children infected with infectious mononucleosis.



Figure 2. Distribution of children infected with infectious mononucleosis by age and sex

When determining the temperature response in children with infectious mononucleosis, when sick children were admitted to the hospital, depending on age, in 60 (51.4%) children, the body temperature was above 38 ° C, in 48 (40%) children subfebrile (37 - 38°C) increase in body temperature, only 16 (10%) children had an increase in temperature up to 37°C.

Body temperature upon admission to the hospital	Age of patients								
	3 to 7 years old		8 to 12 years old		13 to 18 years old				
	Абс.	%	Абс.	%	Абс.	%			
to 37,0 °C	3	2,5	7	5,8	2	1,6			
37,0-38,0 °C	15	12,5	27	22,6	6	5,0			
Higher 38,0 °C	16	13,4	36	30,0	8	6,6			
Total	34	28,4	70	58,4	16	13,2			

Table 1 Increase in body temperature in hospitalized children depending on age

Table 1 shows that in the first group the body temperature increased to 37° C in 3 (2.5%) children, in 15 (12.5%) children it increased to $37^{\circ}38^{\circ}$ C, in 16 (13.4%)) the temperature was above 38° C. In the second group, 7 (5.8%) children had subfebrile temperature, 27 (22.6%) children had a temperature up to $37^{\circ}38^{\circ}$ C, 36 (30%) children had a temperature above 38° C. In the third group, subfebrile condition was observed in 2 (71.6%) children, in 6 (5.0%) children the temperature rose to $37^{\circ}38^{\circ}$ C, in 8 (6.6%) children the temperature was above 38° C. In general, it was found that in 58.4% of sick children under observation, the body temperature was above $37^{\circ}38^{\circ}$ C. This, in turn, indicates that the body's ability to fight infection is a response. When studying the premorbid background in children with infectious mononucleosis (Table 1), 114 (95.0%) children were diagnosed with anemia, as well as such frequent concomitant diseases as: rickets - 41 (34.1%), malnutrition - 28 (23 .3%), exudative catarrhal diathesis - 25 (20.8%), premature birth - 19 (15.8%), paratrophy - 16 (13.3%), hereditary diseases - 12 (10%), sepsis and bronchitis - 4.1% (5 patients respectively).

For the normal development of the child and immunity, it is important in the postpartum period to feed the child with mother's milk. In a retrospective analysis, among the observed children, 27.2% of sick children received natural feeding, 30.7% of children received artificial feeding, and 42.1% of children had mixed feeding. Thus, in sick children of this contingent, who received inadequate and unnatural nutrition, an exacerbation of this pathological process was observed. Many domestic and foreign researchers emphasize the serious influence of the type of nutrition of children on the occurrence of this pathology. Undoubtedly, the state of nutrition in early childhood is of great importance, since the violation of the latter is associated with a decrease in general and local immunity, which creates conditions for the penetration and development of various infections.

Infectious mononucleosis infection and its complications, a variety of courses, occupy the focus of attention of every infectious disease specialist, pediatrician and allow you to quickly diagnose this disease, correctly and accurately select pathogenetic therapeutic measures. Of the 120

observed children with infectious mononucleosis (Epstein-Barr virus), in 84 (70%) children the disease proceeded in moderate severity, and only in 20 (16.6%) of sick children a severe course of the disease was observed. This indicates that the cause of the underlying disease is the fact that the protective processes of the child's body are weak.

depending on age and sex												
	Age of patients											
currents	3 to 7 years old		8 to 12 years old		13 to18 years old		Total					
	Абс.	%	Абс.	%	Абс.	%	Абс.	%				
Acute course (up to 3 months)	12	10,0	27	22,5	6	5	45	37,5				
lingering current (up to 3-6 months)	8	6,6	17	14.2	4	3.3	29	24,2				
chronic course (up to 6 years old)	8	6,6	11	9.2	3	2,5	22	18,3				
Relapse stage (onset of clinical symptoms after 1 month)	6	5,0	15	12,5	3	2,5	24	20				

Table 2 Distribution of stages of the disease in children with infectious mononucleosisdepending on age and sex

CONCLUSIONS

All observed 120 (100%) children with infectious mononucleosis had a typical (manifest) course of the disease. It has been proven and substantiated that the clinical form of infectious mononucleosis is most characterized by a manifest course. As can be seen from Table 2, 45 (37.5%) observed children of all ages infected with infectious mononucleosis had an acute course of the disease, and 22 (18.3%) children of all ages had a chronic course of the disease. It was this disease that caused severe complications of the underlying disease due to the fact that in the chronic course of the disease, patients went to the hospital late. The recurrent stage of the disease was observed in 24 (20%) children of all ages and was the focus of attention of every pediatric specialist.

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