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ASSESSMENT OF THE EFFECTIVENESS OF TREATMENT OF OBSTRUCTIVE BRONCHITIS IN FREQUENTLY ILL CHILDREN.

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Relevance. Despite the progress achieved in diagnosis and treatment, diseases of the respiratory system still occupy one of the first places in the structure of morbidity among children and adolescents. This is due to the deterioration of the environmental situation throughout the world, and the pathology of the respiratory system is closely related to the environment [1,5].

On average, frequently ill children account for up to 70-85% of all cases of respiratory diseases in pediatric patients [2,4]. Research in recent years has provided evidence that bronchopulmonary diseases often develop against the background of disruption of the normal functioning of the immune system, and in some cases, immunodeficiency states - primary and secondary [3].

In modern literature there is no systematic information about the relationship between clinical and immunological characteristics in "frequently ill children" with acute obstructive bronchitis [2,3]. In this regard, it seems relevant to study the clinical and immunological features of acute obstructive bronchitis in children to improve diagnostic and therapeutic measures, which was the purpose of this study [4].

Target: To study the effectiveness of the immunomodulator "Polyoxidonium" on clinical and immunological parameters in frequently ill children with acute obstructive bronchitis.

Materials and methods. Group I included 40 children with acute obstructive bronchitis from the group of frequently ill children, who were divided into 2 subgroups Ia and Ib - 20 children each with obstructive bronchitis from the group of frequently ill children, depending on the therapy, subgroup Ia received in addition to standard therapy polyoxidonium, subgroup Ib received standard treatment of acute obstructive bronchitis, according to established protocols for the treatment of the disease.

A comparative analysis of the dynamics of the clinical course of the disease in patients of subgroups Ia and Ib showed that the general condition of patients improved significantly faster by an average of 1.2 days ($P < 0.01$) in patients of subgroup Ia compared with subgroup Ib. Cough also stopped significantly longer in patients with obstructive bronchitis from subgroup Ia who received polyoxidonium for an average of 2.1 days. Physical changes in the lungs, which are the most demonstrative clinical symptoms of obstructive bronchitis, were normalized according to percussion changes in the lungs - by 4.3 ± 0.2 and auscultatory changes - by 5.2 ± 0.2 days in patients with acute obstructive bronchitis who received polyoxidonium, which was 1.1 and 1.2 days ahead of the disease dynamics in patients of subgroup Ib ($P < 0.05$; $P < 0.05$).

In our observations, relief of respiratory failure with traditional therapy in patients of group Ib was 5.3 ± 0.2 , cough 7.5 ± 0.3 , which was significantly longer in comparison with the indicators of subgroup Ia ($P < 0.01$; $P < 0.001$).

Dynamics of disappearance of the main clinical symptoms in patients of subgroups Ia and Ib (in days, $M \pm m$)

№	Clinical symptoms	Ia subgroup		Ib subgroup		P
		M	m	M	m	
1.	Improvement of general condition	4,8	0,2	6,0	0,2	<0,05

2.	Cyanosis of the skin and mucous membranes	4,3	0,2	5,1	0,2	<0,05
3.	Temperature	2,8	0,1	3,0	0,2	>0,5
4.	Cough	5,6	0,2	7,5	0,3	<0,001
5.	Respiratory failure	4,3	0,2	5,7	0,2	<0,01
6.	Percussion changes in the lungs	4,3	0,2	5,3	0,2	<0,05
7.	Expiratory dyspnea	4,7	0,2	5,9	0,2	<0,05
8.	Auscultatory changes in the lungs	5,2	0,2	6,3	0,3	<0,05
9.	Normalization of cardiac activity	2,9	0,2	4,9	0,2	<0,001
10	Average length of hospital stay	5,2	0,3	6,8	0,3	<0,01

P – reliability of differences in the compared indicators in patients of subgroups Ia and Ib

The duration of inpatient treatment of patients with obstructive bronchitis from the group of frequently ill children was also significantly longer in patients of subgroup Ib compared with subgroup Ia (5.2 ± 0.3 and 6.8 ± 0.3 bed days; $P < 0.01$).

The main pathological syndrome in almost all patients was bronchial obstruction syndrome. In this regard, along with generally accepted clinical and laboratory examination methods, we assessed the severity of obstruction in patients of groups Ia and Ib using the RDAI scale, saturation and saturation-scale assessment.

Distribution of patients with varying degrees of bronchial obstruction depending on the examination method

Degree of obstruction	Examination method							
	RDAI		SpO ₂		SShO		Bronchophonography (E:I index)	
	Ia	Ib	Ia	Ib	Ia	Ib	Ia	Ib
I	9	8	10	9	7	10	11	10
II	8	9	7	8	10	10	6	7
III	3	3	3	3	3	0	3	3

As can be seen from the table, assessment on the RDAI scale, saturation, SShO and modified bronchophonography using the E:I index method showed approximately the same number of bronchial obstruction of varying severity in patients of subgroup Ia and subgroup Ib.

Comparative analysis of clinical and instrumental indicators of the severity of obstructive

syndrome in patients of groups I and II.

Index	On admission		P ₁	on the 3rd day		P ₂
	Ia	Ib		Ia	Ib	
SShO	8,5±0,2	8,7±0,3	>0,5	6,0±0,2	7,2±0,2	<0,05
RDAI	5,7±0,2	5,6±0,3	>0,5	3,7±0,2	4,6±0,2	<0,01
SPO ₂	93,6±0,3	93,4±0,2	>0,5	94,8±0,3	93,9±0,2	>0,5
E:I index	1,50±0,06	1,52±0,06	>0,5	1,24±0,06	1,44±0,05	<0,05

Note: P₁ and P₂ significance of differences between Ia and Ib subgroups of patients.

Analysis of the table shows that clinical and instrumental indicators reflecting the severity of bronchial obstruction did not differ significantly upon admission in patients of groups Ia and Ib ($P>0.5$). At the same time, in the future, a difference was noted in the indicators of RDAI and SShO in dynamic observation, thus, the indicators of subgroup Ia significantly improved on the 3rd day of hospital treatment ($P<0.05$; $P<0.01$; $P<0.05$) in comparison with indicators of patients in subgroup Ib, which indicates a slower dynamics of recovery of the respiratory system in patients receiving oral polyoxidonium.

To illustrate the effectiveness of the use of polyoxidonium in acute obstructive bronchitis, we present an extract from the medical history No. 625/2422

Patient P. was admitted to the 2nd emergency pediatrics department. Age 2.5 years. Complaints upon admission: fever, cough, wheezing, lack of appetite.

From the life history: Mother is 24 years old, suffers from anemia, pyelonephritis. Married since 20 years. A child from the first pregnancy, first birth, a girl, body weight 2900 g, body length 50 cm. The child was previously hospitalized 4 times in the pulmonology departments of the region due to acute respiratory infection and bronchitis.

The last hospitalization was 3 months ago. Regularly observed by a local pediatrician and immunologist.

From the anamnesis of morbi: the child has been sick for 4 days. The disease began with fever and nasal congestion. We were treated on an outpatient basis. On the 3rd day, the child began to wheeze, shortness of breath intensified, and was hospitalized in the Republican Scientific Center for Emergency Medical Care.

On admission: general condition is serious. Concern is noted, the child responds adequately to the examination. The skin is pale with slight perioral cyanosis. Tissue tone and turgor are reduced. Extremities are warm. The large fontanel is closed. Breathing through the nose is difficult, and expiratory shortness of breath is noted. The number of breaths is 40 per minute. The act of breathing involves auxiliary muscles, some retraction of the intercostal and subcostal spaces. On percussion there is a box-like pulmonary sound in the lungs on both sides, and on auscultation there are wheezing rales on exhalation in all pulmonary fields. Heart sounds are muffled, the number of heartbeats is 128 per minute. A/D – 85/55, pulse in the periphery is detected. The abdomen is moderately swollen, the liver does not protrude from under the edge of the costal arch, the spleen is not palpable, the stool is pasty and brown in color. There is no stiff neck. The child's body weight is 13 kg.

Upon admission: scores on the RDAI scale - 8 points, saturation (SpO₂) - 94%, SShO - 9 points. The modified bronchophonography showed an E:I index of 1.52.

Clinical diagnosis: Acute obstructive bronchitis, acute respiratory failure of the first degree, acute bronchial failure of the first degree. Group of "frequently ill children", II degree anemia.

In the general blood test, anemia Hb - 88 g/l, moderate leukocytosis, neutrophilia with a shift to the left, ESR - 18 mm/hour. X-ray conclusion: obstructive bronchitis.

Received treatment: Viferon suppositories, nasal cleaning, oral amoxicillin, oral polyoxidonium, inhalation of 3% sodium chloride via nebulizer, inhalation with nebutamol, plenty of fluids, symptomatic therapy with antipyretics.

On the 2nd day from the start of treatment: RDAI score - 6 points, saturation - SpO₂ - 96%, SShO - 6 points, E:I index - 1.36, previously started treatment was continued. On the 3rd treatment,

the condition improved, saturation was within normal limits, repeated bronchophonography also showed positive dynamics, E:I index – 1.27. On the 5th day of treatment, the temperature returned to normal, distant wheezing disappeared, appetite appeared, E:I index – 1.22.

The child was discharged home on the 6th day in satisfactory condition with clinical relief of signs of broncho-obstructive syndrome. At the same time: ratings on the RDAI scale - 2 points, saturation - SpO₂, - 97%, SShO - 2 points. E:I index at discharge returned to normal – 1.04.

The patient was prescribed polyoxidonium at a dose of 12 mg/day. Course of treatment: 20 days. When re-examined after 2 weeks, the child is completely healthy and does not show any complaints. Over the next 3 months, no repeated cases of broncho-obstructive syndrome and acute respiratory infections were observed.

Conclusions. The given clinical example shows that in children with acute obstructive bronchitis from the group of frequently ill patients, the use of polyoxidonium against the background of traditional therapy is manifested not only by the positive dynamics of changes in respiratory disorders determined by the RDAI scale, saturation - SpO₂, SShO and E:I index, which manifested itself favorable course of the disease, but also leads to a significant reduction in repeated relapses of the disease, which makes it possible to recommend this method for use.

Bibliography

1. Allanazarov A, B. Zhalilova S., Mamarizaev I.K., Mardonov A. Risk factors for the development of acute broncho-obstructive syndrome in frequently ill children according to the data of the Russian Research Center for Emergency Medicine of the Samarkand branch. Cardiorespiratory studies. No.SI-4. 11 2022. Page 31-33
2. Zakirova B.I., Mamarizaev I.K. The course of recurrent respiratory infections in children against the background of atopic dermatitis // Questions of science and education, 2021. No. 9. P. 134.
3. Nurali Mamedovich Shavazi, Alisher Baymuradovich Allanazarov, Muhiba Saifievna Ataeva, Zhavlon Shavkatovich Gaibullaev. Modern views on the occurrence of obstructive pulmonary disease in children. Journal of cardiorespiratory research. №1 2021 Page 40-43
4. Shavazi Nurali Mamedovich Allanazarov Alisher Boymurotovich, Ataeva Muhiba Saifievna, Gaibullaev Zhavlon Shavkatovich. Clinical and immunological features of broncho-obstructive syndrome in children of early and preschool age. Problems of biology and medicine. No. 1 (134) 2022. pp. 89-92
5. Shavazi, N., Lim, M., Tambriazov, M., & Khusainova, Sh. (2018). Prevalence of relapses of obstructive bronchitis in children. Journal of Problems of Biology and Medicine, (4 (104), 132–134.
6. https://inlibrary.uz/index.php/problems_biology/article/view/2736