



FEATURES IN THE RELATIONSHIP OF CYTOCHEMICAL, METABOLIC ACTIVITY OF LEUKOCYTES IN THE TREATMENT OF EARLY CHILDREN WITH OBSTRUCTIVE BRONCHITIS

¹ Mukhsinova M.Kh., ² Utepova G.B., ³ Isabaeva D.Kh., ⁴ Zafarova M.Z.

¹ Candidate of Medical Sciences, Associate Professor, Tashkent State Dental Institute

² Candidate of Medical Sciences, Associate Professor, Tashkent State Dental Institute

³ Assistant of the Department, Tashkent State Dental Institute

⁴ Student of group 227, Samarkand Medical University

Tashkent, Uzbekistan

mukhsinovamakhzuna@gmail.com

Article history:

Received: September 7th 2023
Accepted: October 7th 2023
Published: November 10th 2023

Abstract:

The article provides data on the definition and rationale for the inclusion of immunomodulin in a complex of therapeutic measures for sick young children with acute obstructive bronchitis and bronchiolitis. The effectiveness of the drug immunomodulin was assessed by the period (days) of disappearance of symptoms of respiratory failure and intoxication in children during the period of treatment.

Keywords: Obstructive syndrome, bronchitis, bronchiolitis, children, treatment.

To date bronchitis Republic Uzbekistan remain one from main pathologies structure lesions lower respiratory pathways, especially in young children [1,2]. At the same time, the leading place among bronchitis occupy spicy obstructive bronchitis and bronchiolitis, which are characterized by a tendency to repeated episodes exacerbation and development heavy complications, as well as a relapsing course [5,6].

Important Mark, What behind latest years achieved certain successes V studying etiology, pathogenesis, clinics, diagnostics treatment acute obstructive bronchitis And bronchiolitis [3,4]. IN That or time, How shows clinical experience of practicing pediatricians, from which V significant least depends timely diagnostics diseases, appointment adequate pharmacotherapy, individual prevention relapses in in many ways become more complicated because of insufficient the number of pathogenetically substantiated treatments [9,10]. Not enough studied, especially at diseases Acute obstructive bronchitis (AOB) and Acute obstructive bronchiolitis (AOBL) at children early age, is a drug immunomodulin [7,8].

MATERIAL AND METHODS.

Studies have been conducted that present intelligence By definition And rationale for the inclusion of immunomodulin in the complex of therapeutic measures for sick children early age from Acute obstructive bronchitis and Acute obstructive bronchiolitis.

The effectiveness of the drug immunomodulin was assessed by deadline (days) disappearance

symptoms respiratory insufficiency And intoxication at children V period carried out treatment. Objective symptoms respiratory failure in the clinical picture in children with Acute obstructive bronchitis and Acute obstructive bronchiolitis there was severe shortness of breath with participation in the act breathing auxiliary muscles And inflation wings nose, cyanosis nasolabial triangle, high frequency breathing, pallor of the skin, tachycardia, prolongation exhalation, remote wheezing, A Also defined auscultation - at children With AOB dry whistling And buzzing, With Acute obstructive bronchiolitis V mostly abundance fine-bubbly wheezing, cough (V beginning dry intrusive, A V processtreatment wet to productive).

Objective symptoms intoxication body at children With Acute obstructive bronchitis and Acute obstructive bronchiolitis V period treatment were high body temperature, lethargy, adynamia, moodiness and anxiety, sleep disturbance, poor appetite, catarrhal phenomena (rhinitis, pharyngitis, nasopharyngitis), leukopenia, neutrophilia, promotion ESR.

Necessary Mark, What heaviness sick children With Acute obstructive bronchiolitis By clinical signs was much higher, how at children With Acute obstructive bronchitis, What required conduct more intensive therapy With turning on Not only bronchodilators, sedatives funds, But And much more mucolytic drugs, A Also V some cases antibiotics, glucocorticoid hormones (in/in short course V flow 3-5 days).



RESULTS AND DISCUSSION.

Differences in therapy between patients with Acute obstructive bronchitis and Acute obstructive bronchiolitis noted V the following examples.

Sick Sh., 9 months Got sick sharp: fast rose temperature body before 38.5°C, there is a problem nasal breathing, during the day was one-time vomit. On 2nd day joined cough, shortness of breath, from nose – abundant serous-mucous discharge; child became restless capricious, lethargic. Sleep and appetite disturbances were observed. At home took bisectol, mucaltin, processed throat furacillin solution, but fever, cough, lethargy, dyspnea. On 3rd day examined district police officer doctor and sent for treatment to the Tashkent city children's hospital clinical hospital, where he was hospitalized in serious condition V 1 somatic department. At admission temperature body 38.8°C, pale, lethargic, indifferent were observed pronounced dyspnea, cyanosis nasolabialtriangle. Distant rales were heard. From the nose mucous membranes discharge. Intrusive wet cough. The mucous membrane of the oropharynx is hyperemic. BH - 58 in 1 min. Above the lungs hear an abundance of silent fine-bubble sounds wheezing during inhalation and at the very beginning of exhalation, dry whistling wheezing when exhaling. Percussion sound over her with box shade. Tones hearts muted, tachycardia. Pulse rhythmic 152 V 1 min. Stomach soft, painless. The liver protrudes from under the rib with a sharp elastic edge by 1 cm. Clearly palpable spleen. Stool and urine output Not violated. In blood: HGB - 128 g/l, RBC - 3.8-10¹² /l, CPU - 1.0, WBC - 11.0-10⁹/l, NEUT - 4%, NEUT-33%, EO - 5%, LYM - 52%, MON - 4%, ESR - 14 mm/h. X-ray - increased transparency pulmonary fields, low standing diaphragm.

At studying specific indicators local immunity revealed: CP-cationic proteins - 2.11 conventional units ; myeloperoxidase MP - 1.56 conventional units ; acid phosphatase - 0.51 conventional units ; alkaline phosphatase - 0.39 conventional units ; glycogen GL - 0.48 conventional units ; succinate dehydrogenase SDH - 0.71 conventional units; α-glycerophosphogenerase GPDH - 1.62 conventional unit ; creatine kinase CK - 6.53 ME/10⁹ l; chemiluminescence HL -885.54 imp /s/10⁹ l; NST test - 16.21 conventional units ; phagocytic activity FA - 73.25%; FF - 3.26%; FI - 3.58%; PZF - 75.23%; PI - absorption index - 2.50%. On basis clinical and instrumental data was The diagnosis was made - Acute obstructive bronchiolitis, Respiratory failure (RF) II degrees.

IN further on background pathogenetic therapy state gradually became improve: temperature returned to normal by the 3rd day of

illness, wheezing in the lungs by the 8th day, cough To 10th day. Dyspnea disappeared on 5th day, appetite improved by 6th, catarrhal phenomena - on 5th.

Received: humidified oxygen, penicillin, salbutamol, broncholithin, prednisolone short course.

After treatment: CP - 1.37 conventional units ; MP - 1.65 conventional units ; CP - 0.43 conventional unit ; alkaline phosphate - 0.33 conventional unit ; GL -1.69 conventional unit ; SDH -1.36 conventional unit ; α-GPDH - 1.10 conventional unit ; CK - 8.03 ME/10⁹ l; CL - 707.35 imp /s/10⁹ l; NST test - 13.75 conventional units ; PPF - 76.96 %; PI - 1.66%.

The child was discharged from the hospital on the 12th day, in satisfactory condition.

Patient D., 1 year old. The disease began with malaise, dry cough, nasal congestion. On the 3rd day it increased body temperature up to 38.2°C, shortness of breath appeared. State baby worsened became lethargic, capricious. At home treated ampicillin (tab), bromhexine, paracetamol. Despite this, the child's condition worsened and dyspnea, intensified cough, violated dream. On 4th day child V severe condition hospitalized V 1 somatic department 1- City Children's Clinical Hospital.

At inspection V clinic temperature body 38.3°C, cutaneous covers pale, warm. Perioral is noted cyanosis. At breathing wings nose swell, are listened to remote wheezing. Breathing is rapid, 54 per 1 min. Listen over the lungs dry whistling And wet medium bubble wet wheezing. Heart sounds are muffled, tachycardia. Pulse 148 at 1 min. Liver And spleen Not increased. Chair And diuresis regular.

In the blood: HGB - 106 g/l, RBC - 3.6 x10¹² /l, CPU - 0.9, WBC - 8.0 x 10⁹ /l, NEUT - 3%, NEUT-37%, EO - 6%, LYM - 47%, MON - 7%, ESR - 10 mm/h.

Cytochemical indicators blood before treatment: KP - 1.92 conventional units ; MP - 1.72 conventional units ; acid phosphatase - 0.53 conventional units ; ALP - 0.40 conventional units ; GL - 0.77 conventional units ; SDH - 0.85 conventional units ; α- GFDH - 1.33 conventional units ; CK - 6.88 IU/10⁹ l; CL - 835.91 imp /s/10⁹ l; NST test - 14.44 conventional units ; PPF - 93.95 %; PI - 2.75 %.

Radiography - bilateral gain pulmonary drawing And extension roots lungs, increased transparency pulmonary fields.

On basis clinical and instrumental research diagnosis was made: acute obstructive bronchitis, RF II degree.

Cytochemical indicators blood after treatment: KP - 1.51 conventional units ; MP -

2.08 conventional units ; acid phosphatase - 0.39 conventional units ; alkaline phosphate - 0.31 conventional units; GL - 1.88 conventional units ; SDH - 1.37 conventional units ; α-GPDH - 1.16 conventional unit ; CK - 8.86 ME/10⁹ l; CL - 612.39 imp /s/10⁹ l; NST test - 12.37 conventional unit ; PPF -73.48 %; PI -1.61 %.

Recovery happened slowly. Temperature lasted 2 days, shortness of breath - 4 days, cough - 8, wheezing - 7 days. Appetite returned to normal To 5th day, dream To 6th day. Checked out To 9th day V satisfactory condition.

From given examples it is seen, what at treatment using the traditional method, the clinical picture of sick children with Acute obstructive bronchitis and Acute obstructive bronchiolitis differed significantly. Duration of treatment in children with Acute obstructive bronchiolitis it was 12 days, and in children with Acute obstructive bronchitis it was 9 days, despite on That, what sick carried out all complex modern medicinal events. Under influence traditional treatment row indicators - lethargy, adynamia, absence appetite, enlarged peripheral lymph nodes, pale skin, distant wheezing, and wheezing, determined by auscultation, cough - persisted enough long-term time.

At this severity clinical and laboratory signs in patients with Acute obstructive bronchiolitis differed for a longer period aggressive current, how at sick children With Acute obstructive bronchitis. Additional inclusion complex medicinal events drug immunomodulin allowed significantly reduce deadlines disappearance clinical signs respiratory insufficiency by comparison with such data marked at children treated traditional method (Tables 1 and 2).

Deadlines disappearance clinical signs, assessed by indicators characterizing respiratory failure at children With AOB period carried out treatment at additional inclusion immunomodulin, comparison With group children, treated traditional method, decreased.

**Deadlines (days) disappearance of clinical signs
respiratory failure in children with AOB
during carried out treatment (M+m)
Table 1.**

Clinical sign	Traditional therapy (n =38)	Trad . therapy + immunomodulin (n=25)	Effect , %
Expiratory Muscles	3.4±0.81	2.3±0.15*	32.4
Recovery frequencies Breathing	3.9±0.27	2.7±0.16*	30.8
Cyanosis nasolabial triangle	2.8±0.16	2.1±0.12*	25.0
Pallor skin covers	5.7±0.12	4.9±0.23*	14.0
Tachycardia	3.2±0.22	2.5±0.18*	21.9
Remote wheezing , A	4.9±0.28	3.5±0.26*	28.6
Also defined auscultation	7.4±0.39	5.3±0.28*	28.4
Cough and disappearances	7.9±0.23	5.8±0.26*	26.6
Average meaning			26.0±2.2

● - P <0.05

Thus, expiratory dyspnea with the participation of auxiliary muscles disappeared on 1.1 day earlier, A clinical the effect increased by 32.4%, restoration of respiratory rate decreased on 1.2 days, clinical Effect increased on 30.8% (Table 2)

Deadlines (days) disappearance of clinical signs respiratory failure in children with acute obstructive pulmonary disease during carried out treatment (M+m)

Table 2

Clinical sign	Traditional therapy (n =15)	Traditional therapy + immunomodulin (n =17)	Effect, %
Expiratory dyspnea with participation of	4.5±0.28	3.1±0.20*	31.1
Frequency recovery Breathing	4.7±0.19	3.3±0.14*	29.8
Nasolabial cyanosis Triangle	3.6±0.20	2.7±0.18*	25.0
Pallor skin covers	7.8±0.33	6.3±0.45*	19.2
Tachycardia	4.9±0.27	3.5±0.21*	28.6
Distant	6.7±0.39	5.3±0.26*	20.9
About definable Auscultation	11.6±0.33	8.9±0.35*	23.3
Disappearance percussion sound with boxed shade or boxed sound	7.8±0.34	6.4±0.17*	18.0
Cough until Disappearances	10.5±0.26	8.8±0.14*	16.2
Average meaning			23.6±1.67

* - P <0.05

Disappearance cyanosis nasolabial triangle was observed 0.7 (P<0.05) days earlier, the effect increased by 25.0%, pallor skin covers on 0.8 (P<0.01), tachycardia by 0.7 (P<0.001), remote wheezing by 1.4 (P<0.001), A Also determined auscultation on 2.1(P<0.002), cough decreased - on

2.1 (P<0.002) days , A clinical Effect increased respectively on 14.0%, 21.9%, 28.6%, 28.4% And 26.6%.

When assessing the effectiveness of treatment in children with acute obstructive pulmonary disease indicators characterizing respiratory failure, revealed What term disappearance expiratory shortness of breath was Briefly speaking at sick, treated immunomodulin on 1.4 days (P<0.002), A index the effectiveness of treatment increased by 31.1%. Recovery frequencies breathing, disappearance cyanosis nasolabial triangle, pallor skin covers, tachycardia, remote wheezing, A Also determined auscultation, characteristic percussion pulmonary sound With boxed shade, cough decreased accordingly on 1.4 (P<0.002), 0.9 (P<0.001), 1.5 (P<0.002), 1.4 (P<0.002), 1.4 (P<0.002), 2.7 (P<0.002), 1.4 (P<0.002) And 3.7 (P<0.002) days, and efficiency treatment increased on 29.8%, 25%, 19.2%, 28.6%, 20.9%, 23.3%, 18.0% And 16.2%.

CONCLUSION. Thus, the analysis of the data obtained from the study clinical signs disappearance respiratory insufficiency at sick With OOB And OOB I showed What efficiency treatment at inclusion immunomodulin significantly higher than in patients treated with traditional therapy.

BIBLIOGRAPHY:

1. Nenna R., Cutrera R., Frassanito A., Alessandrini C., Nicolai A., Cangiano G. et al. Modifiable risk factors associated with bronchiolitis. Ther. Adv. Respir. Dis. 2017; 11(10): 393–401.
2. Schuster Bruce C., Hoare C., Mukherjee A., Paul SP Managing acute respiratory tract infections in children. Br. J. Nurs . 2017; 26(11): 602–9.
3. Mirvarisova , L., Nurmamatova , K., & Mirzarakhimova , K. (2018). Medical management, optimization and improvement of the healthcare system in Uzbekistan. *Stomatologiya , 1* (4 (73)), 61-64.
4. Volodina N.N., Clinical recommendations. Neonatology / ed. Volodina N.N., Degtyareva D.N., Kryuchko D.S. - M.: GEOTAR-Media, 2019. - 320 p.
5. Kurskaya O.G., Sobolev I.A., Zhen M., Anoshina A.V., Leonova N.V., Ryabichenko T.I. Etiological structure of acute respiratory viral infections in the child population of Novosibirsk // Innovations in medical, pharmaceutical, veterinary and environmental microbiology. 2017. pp. 170–



171.

6. Nurmamatova , KC, Abdukadirov , KJ, Karimova , MU, & Makhmudova , M. Kh . (2022). THE STUDY OF THE DYNAMICS OF THE INCIDENCE OF ALLERGIC RHINITIS AMONG CHILDREN IN TASHKENT. *SUSTAINABILITY OF EDUCATION, SOCIO-ECONOMIC SCIENCE THEORY*, 1 (4), 56-59.
7. Nazarenko I.M., Kuzmenko L.G., Petruk N.I. Features of phagocytosis, immune and interferon status in young children with recurrent obstructive bronchitis // *Pediatrics*. – M., 2011. - No. 5. – pp. 21-23
8. Choriyeвна , NK, Bahtiyarovich , AZ, Umarovna , KM, Kamilovna , SN, & Lolayevich , TA (2021). Assessment Of Risk Factors For The Development Of Allergic Diseases In Children. *European Journal of Molecular and Clinical Medicine* , 8 (2), 319-330.
9. National program "Bronchial asthma in children. Treatment strategy and prevention." 4th ed., revised . and additional M.: Original layout, 2012. 184 p.
10. Nikolaeva, V. Bronchitis / V. Nikolaeva. — M.: Ves, 2019.— 226 p .
11. Kuliyeв, O. A., Nurmamatova Q. Ch, and K. R. Mirzarahkimova. "Department of management and organizations of public health single methodical system." *Scientific approach to the modern education system* 1.10 (2022): 128-134.
12. Samsygina G.A. Chronic cough in children and its treatment // *Consilium Medicum* . Pediatrics. 2015. No. 02. pp. 24–28.
13. Simovanyan E.I., Denisenko V.B. Improving the treatment of acute obstructive bronchitis associated with ARVI in young children // *Journal named after G.N. Speransky "Pediatrics"*. 2018. T. 97. No. 1. pp. 65–70.
14. Rizaev , J. A., and Nurmamatova K. Ch. "Peculiarities of the Dynamics of Morbidity of allergic Diseases among Children of Tashkent." *Annals of the Romanian Society for Cell Biology* (2021): 15309-15319.
15. Shchetinin M.N. Diseases of the bronchi and lungs . M.: Book Club 36.6, Metaphor, 2017. - 152 p.