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INFLUENCE OF IMMUNOCORRECTIVE DRUGS ON THE QUALITY OF HEALTH OF FREQUENTLY ILL CHILDREN WITH PREMORBID BACKGROUND

Irbutaeva Lola Tashbekovna, Rasulova Nodira Alisherovna

Samarkand State Medical University Samarkand, Uzbekistan

Abstract. The problem of frequently and long-term ill children is one of the urgent and unresolved problems in pediatrics. We have identified specific disorders in certain parts of the immune system and non-specific factors of body defense in FIC, which is the basis for the inclusion of immunocorrective drugs for the treatment and prevention of diseases. The use of Broncho-Munal as an immunocorrective drug makes it possible to reduce the incidence rate and improve the quality of life of frequently ill children.

Keywords: children, health, drugs, immunocorrective.

Relevance. The problem of frequently ill children is a universal clinical problem, one of the most pressing issues in modern pediatrics and is in the center of attention of physicians of all specialties. The urgency of the problem is explained by a significant increase in the number of patients, an increase in bed funds in children's hospitals, long-term care for sick children, because of which the state has huge economic damage [4,6,8].

According to different authors, PICs make up from 20 to 65% of the child population [1,7,9] and are characterized by a frequency of re-infections from 6 to 12-15 times a year. In this regard, the interest in developing tactics for managing children with recurrent infections is understandable.

In the structure of morbidity, respiratory diseases continue to occupy a leading position, followed by diseases of the digestive system, blood and hematopoietic organs, infectious diseases of the skin and subcutaneous tissue, kidneys and urinary system, and others [3,10].

It is known that, along with specific factors, nonspecific factors of body defense play an important role in protecting the body from an infectious agent. These include the content of complement, lysozyme and bactericidal activity of serum, the activity and completeness of phagocytosis and the adsorption capacity of erythrocytes. The works devoted to the study of this problem are insignificant and are only substantiated by the results of a few observations [2,5].

Thus, the lowered immune state of the body of young children leads to the formation of a group of frequently ill children. The fact that when immunity is weakened, the body is attacked by opportunistic microbes does not require explanation.

The aim of the study: was to determine the immunological state of the body in frequently ill children, to establish diagnostic criteria for assessing the immunological status and to identify the results of using an immunostimulant along with traditional methods of treatment.

Material and research methods: We examined 62 children with bronchopulmonary diseases aged from 1 month to 6 years, who are included in the group of frequently ill children. All children were examined in the State Children's Clinical Hospital No. 1

in Samarkand. Of the total number of boys, there were 34 (54.8%), girls - 28 (45.1%). The distribution of patients by age showed that children from 3 to 6 years of age predominated.

An analysis of the premorbid background showed that iron deficiency anemia was common in children - 56 (90.3%), rickets - 48 (77.4%), malnutrition - 22 (35.4%), convulsive syndrome - 21 (33.8%), chronic tonsillitis - 17 (27.4%), acute nasopharyngitis - 18 (29%).

During the clinical examination, all children were diagnosed with frequent diseases such as SARS (32.2%), focal pneumonia (29%), acute bronchitis (20.9%), obstructive bronchitis (17.7%).

A general examination of children revealed the following complaints: fever was noted in 62 patients (100%), cough - 57 (91.9%), vomiting - 23 (37%), anxiety - 60 (96.7%), shortness of breath - 18 (29%), convulsions - 21 (33.8%), loss of appetite - 58 (93.5%).

The material for the immunological study was blood. The determination of complement titer, lysozyme and bacteriostatic activity in blood serum was carried out by the photonephelometric method. When determining the bacteriostatic activity of blood serum, a technique was used based on measuring the optical density of the meat-peptone broth during the growth of a culture of staphylococcus in it. When determining the titer of serum lysozyme, the method is based on the high sensitivity of the culture of *Micrococcus lisodecticus* to the effects of lysozyme. Quantitative determination of the immunoglobulin fraction was carried out by the method of immunodiffusion in agar gel according to Mancini.

Research results and discussion: In FIC, the premorbid background has a wide range. Among which chronic tonsillitis, rhinopharyngitis, rickets of the I degree, malnutrition of the I degree and anemia of the I-II degree are very common. Diarrhea occupies a special place among the accompanying syndromes. In EBD, malnutrition and signs of rickets were not registered in any case.

To study the immunological status, a set of methods was used to reflect the state of immunity (the amount of immunoglobulins A, M, G in the blood serum) and non-specific factors of body defense (complement content, lysozyme and bacteriostatic activity of serum, activity, index and completeness of phagocytosis and adsorbing ability of erythrocytes). The normative data obtained at the Institute of Immunology of the Academy of Sciences of the Republic of Uzbekistan were used.

High levels of IgG compared with the norm in FIC prove that diseases of the upper respiratory tract are caused by gram-positive microorganisms. During the disease, their accumulation in the blood serum increases, protection appears. High levels of IgM are noted, which is 136.+7.4% compared to the norm - 97.5+4.2%. IgA in FIC was noted in smaller amounts (112.0+10.1 in FIC, 156.8+12.0 in EBD, 151.0+11.0 normal in healthy children), which may suggest the development of a pathological process in the gastrointestinal tract.

In protecting the body of young children from an infectious agent, nonspecific protective factors play an important role. The results of the study of cellular factors of body defense in healthy children, in EBD and FIC show an immunodeficiency state

in FIC. Normal phagocytic activity of leukocytes in healthy children is $49.8+2.7\%$, in EBD - $52.8+3.8\%$ and in FID - $58.8+2.9\%$ High AF values show that the body mobilizes all its forces against pathogenic microbes and the number of active leukocytes increases. But their digestive capacity - the index of phagocytosis drops sharply. If normally in children from one month to 7 years of age, the IF is $5.1 + 0.7$, then in FBI it is $1.6 + 0.6\%$. Each active leukocyte can absorb only 1 microbial cell. Accordingly, the ST (norm -4-6 points, EBD - 4-6 points, for FBD - 7-8 points).

In our observations, it was noted that there is no quantitative change in erythrocytes in FIC compared to the norm. However, their adsorption capacity is sharply reduced. Normally, the sticking ability of erythrocytes, microbial cells is 18 - 20%, in FBI - 12 - 13%, which shows that under the influence of prolonged intoxication, erythrocytes lose their receptors. In EBD, the RIP indicators do not change. The low rates of RIP in PSCs compared to healthy ones once again indicate that this phenomenon is one of the factors of natural immunity and actively participates with all parts of immunity in a single fight against infection.

Similar data were obtained in the study of humoral factors. Complement levels in FBI were 50% low compared to normal. The norm is -0.62 - 0.76 units, for EBD - 0.58 - 0.70 units, for FBD - 0.32 - 0.38 units. The bacteriostatic activity of serum (BAS) in relation to the culture of staphylococcus was found in healthy people in dilutions of 1:10-1:640, in EBD 1:10-1:160 and in FBI - 1:10-1:80. The content of lysozyme is 1:10 - 1:160, 1:10 - 1:80 and 1:10 - 1:20, respectively.

To confirm the above, a group of FICs was examined. They were treated with the traditional method (32 children), the traditional method and Broncho-Munal (10 children). Immunological parameters were determined before and after treatment. The results obtained indicate the effectiveness of the use of Broncho-Munal along with traditional methods of treatment, which is expressed by an increase in immunity and the rapid disappearance of the clinical symptoms of the disease. The level of immunoglobulin A with the traditional method is $112.0+10.1$ mg/l, the traditional method + Broncho-Munal increases from $112.0+10.1 - 125.0+10.1$ mg/l. Similar indicators of immunoglobulins M and G.

Under the influence of Broncho-Munal, the levels of non-specific protective factors also increased in frequently ill children. AF from $58.8+2.9$ to $67.5+3.1\%$, IF from $1.6+0.6$ to $5.2+0.7$, AF from 7-8 points to 4-6 points. RIP 12 - 13% to 19 - 20%. Complement 0.32 - 0.37 units. up to 0.65 - 0.72 units, BAS from 1:10 - 1:80 to 1:10 - 1:640, LAS from 1:10 - 1:20 to 1:10 - 160.

The clinical effectiveness of the use of immunocorrective drugs was manifested in the disappearance of clinical symptoms and relapses of the disease. So, if during the treatment with the traditional method, cough, shortness of breath, convulsive symptoms, high temperature disappeared on the 6th-7th day after the application of the treatment, then during the treatment with the traditional method and with the use of Broncho-Munal on the 4th-5th day. Repeated relapses of 32 patients who were treated by traditional methods were observed after 1.5 - 2 months in 15 children. Of the 10 patients who used the traditional method and Broncho-Munal, 2 times applied

for diseases of the upper respiratory tract after 4-5 months. The first group with a relapse was hospitalized, the second group received outpatient treatment.

Thus, we have identified specific disorders in certain parts of the immune system and nonspecific factors of body defense in FIC, which is the basis for the inclusion of immunocorrective drugs for the treatment and prevention of diseases in FIC.

Conclusion:

1. In FIC, the premorbid background is anemia of the I-II degree, malnutrition of the I degree.
2. Diseases of the upper respiratory tract in FIC are often complicated by diarrhea.
3. Treatment and prevention of diseases in FIC can be successfully carried out along with the traditional method in the complex of immunocorrective preparations of Broncho-Munal.

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