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SPECIFIC FEATURES OF THE COURSE OF PNEUMONIA IN CHILDREN AGAINST THE BACKGROUND OF IRON DEFICIENCY ANEMIA

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Abstract
Iron deficiency anemia is one of the important factors in the course of pneumonia in children. Iron deficiency leads to a lack of hemoglobin in the body, which is responsible for transporting oxygen. Due to this, the respiratory process is disrupted, the normal functioning of the respiratory tract and lung tissue deteriorates. As a result, the course of such severe diseases as pneumonia is complicated, its duration increases, and the likelihood of complications increases. This condition is especially serious in infants and young children, since their immune system will not be fully formed yet, and the defense mechanisms are considered weak.

Keywords: Animia, pneumonia, tissues, infection, inflammation, pathogen, microorganisms, lungs, fever, immunity.

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Introduction

Iron deficiency anemia in children contributes to the expansion of the inflammatory process in the lungs. Lack of iron slows down the activity of immune cells that regulate the inflammatory response, while reducing the body's ability to fight infection. As a result, pathogenic microorganisms such as pneumococci and others are easily spread and cause a complex inflammatory process in the lungs. This inflammation covers the entire edges of the respiratory organs, leads to swelling of the mucous membrane and impaired oxygen exchange in the lungs. In patients with iron deficiency, the clinical tableau of pneumonia is complex. Oxygen deficiency is exacerbated by impaired cardiovascular function, which further increases breathing tension. Patients get tired quickly, a high fever is observed, as there is an exacerbation of suckling and inflammatory processes. Shortness of breath and intensification of cough symptoms, including severe coughing and increased sputum separation, are well visible against the background of iron deficiency. Iron deficiency not only complicates the course of the pneumonia period, but also increases the risk of causing new diseases. For example, prolonged high fever, shortness of breath, and chronic inflammation of the inflammatory process can lead to long-term consequences of lower respiratory diseases. Thus, the body's need for this important element, especially in children, plays a large role in combating the disease and its complications. Also, iron deficiency causes a weakening of the muscles of the respiratory system. The muscles involved in breathing cannot function effectively due to oxygen

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deficiency, which leads to a more difficult breathing process. This condition is especially evident in severe pneumonia cases, where children experience difficulty breathing, short and rapid breathing. In such conditions, they require constant monitoring and resuscitation measures.[1]

The course of pneumonia against the background of iron deficiency leads to a violation of the metabolism in the body of children, general weakening and weakening of the immune system. This causes a decrease in drug response and reduces the effectiveness of antibiotics. As a result, the disease lasts longer, the risk of recurrence increases, and the likelihood of an infection spreading increases. In combination with efforts to eliminate iron deficiency, complex anti-pneumonia therapy is used in the treatment. Iron preparations, antibiotics, anti-inflammatory drugs, oxygen therapy and other additional treatments can effectively help the patient recover. It is especially important to provide children with proper nutrition and vitamins to strengthen the immune system, improve the general condition of the body. As for preventive measures, one of the most effective ways to prevent iron deficiency is to enrich the diet of children, to ensure a balanced diet. Iron-rich foods-meat, vegetables, fruits and legumes-must be constantly included in the diet. It is also necessary to control factors that worsen iron absorption – such as gastrointestinal disorders or vitamin C deficiency, and medications that have been taken lightly for a long time. The importance of regular examination of children's health and determination of iron levels is especially emphasized.[2]

The complexity and duration of the disease is often associated with family and living conditions. In low-income areas, when there is a lack of qualified medical care, there is a high incidence of iron deficiency and concomitant incidence of pneumonia in children. Therefore, it is important to develop a health system, spiritual and material support of parents, to teach them a healthy lifestyle and proper nutrition. After an in-depth analysis of the peculiarities of the course of pneumonia against the background of iron deficiency anemia in children, it can be seen that the effect of this condition on the course of the disease, its symptoms and the likelihood of complications is high. A rapid and severe violation of the state of health due to the lack of iron in children with pneumonia during the Renaissance, the need for a correct and complex approach to alleviate the disease runs out. Therefore, it is important to detect iron deficiency in a timely manner, take appropriate treatment measures, and implement preventive measures aimed at improving children's health.[3]

When solving problems associated with the joint effect of iron deficiency anemia and pneumonia, the cooperation of doctors, parents and the health system is mandatory. Prevention, early diagnosis, and effective treatment of iron deficiency and respiratory infections are central to maintaining children's Health, Health Promotion, and healthy cultivation of future generations. Effective treatment of pneumonia in children with iron deficiency requires a comprehensive and multifaceted approach. In this case, it is important to consistently treat not only pneumonia, but also iron deficiency, since these two pathologies increase the level of complications and severity of each other. In each case, strictly following the instructions of the doctor, the complete execution of the healing process will serve to quickly and completely heal the patient.[3]

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Pneumonia is an inflammation of lung tissue that occurs due to many microorganisms, in particular bacteria, viruses or other pathogens. It is considered one of the diseases that are especially severe in children. Iron deficiency, on the other hand, leads to a lack of hemoglobin in the body, which acts as an oxygen transport. This condition worsens the complications of pneumonia and complicates the course of the disease. Therefore, at the beginning of the treatment process, it will be necessary to determine the characteristics of pneumonia, the degree of severity of iron deficiency and the general condition of the patient. First of all, the main remedy used in the treatment of pneumonia is antibiotics. The choice of antibiotic is important and careful, since most pneumonia occurs with bacterial causes. This method of treatment is aimed at eliminating the source of infection, weakening the inflammatory process and improving the general condition of the patient. The duration and dosage of taking antibiotics is determined by the doctor, depending on the age of the child, the course of the disease and other medical indications. If antibiotics are ineffective, the disease can be aggravated or complications arise, so that in the process of treatment, the patient must be under constant medical supervision.[4]

In pneumonia, cleaning the airways, reducing swelling and inflammation are also important. Cough symptoms are reduced by using sputum separation relievers. In addition, in severe cases, oxygen therapy is used, since due to iron deficiency, the ability of the blood to transport oxygen is reduced. When oxygen is administered, the patient's respiratory function improves, lung tissue is saturated with oxygen, which helps recovery. And the treatment of iron deficiency is not distinguished from pneumonia, since iron deficiency not only weakens the general condition of the body, but also disrupts the normal functioning of the immune system. Treatment with iron preparations is carried out under the supervision of a doctor. The type, dosage and duration of administration of the drugs are determined individually. In order for iron to be better absorbed by the body, it is recommended to take it at the same time as vitamin C. Rapid elimination of iron deficiency helps to improve the general condition of children, strengthen the immune system and recover from the disease faster. Meanwhile, when taking iron preparations, attention should be paid to some important aspects. Some children can express gastrointestinal discomfort from iron preparations, such as abdominal pain, nausea and weakness. In these cases, it will be necessary to change the type or dosage of the drug in consultation with the doctor. It is important to have regular blood tests during iron supplementation to monitor changes in hemoglobin levels.[5]

Measures to strengthen the immune system are also an integral part of treatment. Since the lack of iron in the body leads to a decrease in immunity, it is necessary to constantly give preparations, vitamins and microelements that strengthen the child's protective forces. Special vitamin complexes, especially vitamin D, have a beneficial effect on the children's body, since it plays an important role in the proper functioning of the immune system. Proper nutrition, adequate rest, and a healthy lifestyle are also required to support immunity. Also, improving the living and social environment of the child, compliance with hygiene rules, optimization of household conditions will prevent the disease from returning. Increasing water intake, giving balanced and iron-rich foods energize the body. Meat, vegetables, fruits and legumes should be present in sufficient quantities in the diet of children, as they are a source of iron, vitamins and

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other useful substances. In addition, it is important to keep a patient with iron deficiency in the pump on regular medical monitoring. In the course of treatment, the assessment of the course of the disease, updating and changing the treatment if necessary are considered tasks that the doctor will take up. Timely and proper treatment is required to prevent relapses and complications of pneumonia. Disease prevention measures also require special attention. Proper nutrition and preventive measures should be carried out to prevent iron deficiency in children. Preschool children should undergo regular medical checkups and monitor their iron levels. Parents should be educated in this regard and pay special attention to the formation of a healthy lifestyle in children. As a result of timely and proper treatment of children, the occurrence of serious complications associated with pneumonia and iron deficiency is reduced. Following the exact recommendations of doctors, regular medical care and supervision serve to increase the overall wellness level of children. Especially in cases of severe pneumonia, it is necessary to carry out measures aimed at providing emergency medical care, providing the patient with treatments aimed at restoring lung functions and relieving breathing. Also, psychological support in cases of iron deficiency and improved parental information are particular important aspects of the treatment process. Parents should monitor the child's medication regimen, diet, and activities, and maintain regular contact with the doctor. This gentle, non-conflict method speeds up the child's recovery process.[6]

Conclusion:

In conclusion, iron deficiency anemia negatively affects the course of pneumonia in children, increases the duration of the disease, increases the intensity of symptoms, weakens the immune system and increases the risk of complications. Therefore, the joint identification and treatment of these two pathologies in children, the implementation of preventive measures are essential to improve health and improve their quality of life. Measures related to the management of iron resources, improved nutrition and the provision of modern medical care can significantly improve the health status of children. This is one of the important steps in reducing child mortality and growing healthy offspring in our country.

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