

Late Characteristics of Rheumatism in Children

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Abstract: Rheumatism is an acute systemic infectious-allergic inflammation of connective tissues. The pathological process can affect joints, heart, lungs and many other organs. The disease is prone to recurrence. If there is no treatment, dangerous complications will develop that threaten the health and life of the child.

Key words: laboratory blood tests; chest x-ray; Supplements, ultrasound examination of internal organs; ECG, ECHO-CG; CT and MRI.

Features of rheumatism in children

This is a serious systemic disease that occurs mainly in children aged 7-15 years. Due to the level of modern medicine, rheumatism registers 3 cases per 10,000 children. In the 1920s and 1930s, the death rate was 40%, but the incidence of heart defects was 75%. But by the 1980s, the incidence of the disease had declined.

The main feature is its acute onset and long duration: after several years of exacerbation, remission is observed. Rheumatism is one of the main causes of disability and the development of acquired heart defects in children, which occurs as a result of damage to its valves and lobes.

Treatment of rheumatism is carried out by a rheumatologist, but depending on the clinical picture and existing complications, pediatricians, infectious disease specialists, allergists, cardiologists and other specialists are involved. In the treatment and prevention of rheumatism, dentists, ENT doctors, specialists in physiotherapy and spa treatment and rehabilitation specialists are indirectly involved.

Reasons

The disease has an infectious-allergic nature and precedes infections caused by group A hemolytic streptococci.

Recognition of the pathogen occurs by a special protein - an antigen, but the difficulty is that the connective tissue has a similar protein, and the body mistakenly attacks and destroys its own cells. This is how the autoimmune inflammatory process develops. Especially often, such reactions develop with a genetic predisposition.

There are other factors that increase the likelihood of developing rheumatism:

chronic stress;

frequent hypothermia;

untimely or incorrectly selected treatment for streptococcal infections;

lack of food;

autoimmune diseases, such as systemic lupus erythematosus, psoriasis, etc.

Streptococcal infection is dangerous for children suffering from systemic and chronic diseases, experiencing physical or mental stress.

How is rheumatism manifested in children?

The clinical presentation is diverse, it all depends on the area of connective tissue damage, as well as the form, stage and severity of the disease. The first symptoms of the disease appear 1-4 weeks after streptococcal infection, such as sore throat, pharyngitis, etc.

The main symptoms of rheumatism in children can be identified:

discomfort turns into joint pain;

changes in the shape of the joints, which are explained by swelling of the tissues;

weak muscle tone;

frequent increase in blood pressure;

tinnitus, the appearance of spots before the eyes, which may be accompanied by an increase in pressure;

shortness of breath that worsens with physical activity or excitement;

lethargy and weakness;

fatigue, decreased performance and appetite;

an increase in temperature, initially up to 37.5-38 ° C, but as the disease progresses, the numbers will be much higher.

When examining the child, it is noticed that the liver is enlarged, the legs are swollen and the face is swollen, the skin color is pale. Children complain:

heart pain of various degrees;

interruptions in the work of the heart - from slow to fast pulse;

difficulty breathing;

cough

In 40-60% of cases, rheumatic carditis is complicated by damage to several joints and is accompanied by severe pain. Therefore, children try to move less. During the examination, light pink rashes in the form of rings located on the chest and abdomen are noticeable on the skin.

In 7-10% of cases, a cerebral form develops, manifested by tears, frequent mood swings, and then motor disorders are added. Girls are in danger. Parents may notice changes in handwriting and gait, followed by uncontrollable movements, accompanied by impaired speech intelligibility, inability to feed independently and perform simple activities. Such symptoms stop completely after 2-3 months, but may return again

Stages of rheumatism

The clinical course of the disease is divided into several phases (stages): active and inactive. You can talk about an active disease based on the severity of symptoms, as well as laboratory test data. In clinical practice, there are three levels of rheumatism in the active stage:

characterized by mild symptoms and laboratory signs of the disease. There is no formation of inflammatory fluid.

During the examination, signs of rheumatism are revealed, although they do not have a sharp picture.

The exudative component of inflammation predominates, fever, signs of damage to the serous membranes of the heart, joints and organs are characteristic. A closer inspection may reveal obvious changes.

The inactive stage, which lasts from several months to several years, is characterized by the normalization of the child's condition, laboratory and instrumental parameters. Although heart damage is progressive, it can cause acquired defects.

When diagnosing, the course of rheumatism is determined:

acute - if the symptoms last up to 3 months;

subacute - up to six months;

prolonged - this is indicated by the continuation of symptoms for more than six months;

permanent relapse - in this case, remission cannot be determined;

hidden - appears hidden, symptoms appear in the later stages of development.

Possible complications

The most dangerous complications of rheumatism are heart defects, which are manifested in damage to the valves and septa of this organ. This directly affects its functionality and has serious consequences. With each repeated attack of rheumatism, the heart defect worsens, leading to greater complications that affect the entire body.

Other possible complications include:

Arrhythmia is a heart rhythm disorder. Dangerous for the development of heart failure.

Endocarditis is an inflammatory heart disease caused by infectious lesions.

Thromboembolism is the blockage of a blood vessel by a blood clot. A very dangerous situation.

Heart failure is a fatal condition.

These complications can lead to a heart attack or stroke, which can lead to all the consequences that follow.

Diagnostics

The appearance of symptoms of rheumatism is a reason to immediately consult a doctor. The rheumatologist makes an inquiry, determines the cases of streptococcal infection and the specifics of its treatment: what antibiotics have been prescribed and whether the full course has been completed or not.

During the examination, the rheumatologist evaluates the condition of the skin, identifies signs of annular erythema, inflammatory joint lesions and conducts a number of tests.

To develop treatment tactics and determine the form of the disease, the following is done:

laboratory blood tests;

chest x-ray;

Supplements, ultrasound examination of internal organs;

ECG, ECHO-CG;

CT and MRI.

Depending on the manifestation of rheumatism, consultation with a neurologist, ophthalmologist, cardiologist and other specialists is required.

Treatment of rheumatism in children

As in any other pathology, tactics are determined by the doctor. Non-traditional and traditional medicine methods are unacceptable. In this case, the probability of serious complications, irreversible changes and an unfavorable outcome of the disease is almost 100%.

The treatment prescribed by the doctor should be comprehensive and continue until clear remission. Tactics are determined by the set of clinical signs and the stage of the disease.

In the acute stage, treatment is carried out in a hospital. Depending on the clinical damage, bed rest or soft rest is prescribed.

Antibiotic therapy is selected to suppress streptococcal infection, the course is 7-14 days. Anti-inflammatory drugs from different groups are prescribed.

The second stage of treatment is carried out in a sanatorium or specialized rehabilitation clinic, the main goal is restorative therapy, exercise therapy. The child is given a certain diet and vitamin therapy is recommended.

A child with a diagnosis is registered with a dispensary and is under constant supervision by several specialists, including a dentist and an otorhinolaryngologist. Caries, gums, sinusitis, tonsillitis are foci of chronic infection, which can cause complications.

In the presence of co-pathology, tactics include treating diseases and keeping them in remission

Prevention of rheumatism

Rheumatism is a serious disease with severe complications. With an initially formed episode of rheumatic carditis, heart defects develop in 20-25% of cases, but with repeated formation - 100%. This is the main feature of rheumatism in children, the damage affects the middle (myocardium) and inner lining (endocardium) of the heart. In the future, surgical intervention is required. The outcome of the disease largely depends on how quickly the treatment is started and how correctly the therapy is selected.

Accordingly, it is much easier to prevent the disease than to treat it later. Measures of primary and secondary prevention of rheumatism in children were developed and defined.

Primary prevention

It is aimed at preventing streptococcal infections and increasing the body's resistance in general. Such measures are achieved through hardening, a nutritious and varied diet, an active lifestyle and, of course, timely treatment of diseases and sanitation of chronic infection foci, for example, caries.

For any infection, it is important to strictly follow the doctor's recommendations and complete the course of drug therapy. Untreated bacterial infections are a direct path to rheumatism, especially in children at risk.

Secondary prevention

These are measures designed by a rheumatologist to help prevent the development of rheumatism. Children with diseases of the joints and cardiovascular system should be considered at the dispensary, undergo regular preventive examinations and examinations, and take the recommended medications in the schedule and full course.

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