

THE MOST COMMON CAUSES, CLINICAL SYMPTOMS, AND PREVENTION OF RHEUMATIC DISEASES IN CHILDREN AND ADOLESCENTS

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Abstract. This article provides detailed information about the main etiological factors, clinical manifestations, diagnostic methods and modern treatment strategies of rheumatic disease. Rheumatism is mainly associated with autoimmune processes and develops as a result of an immune response that attacks the body's own tissues. The disease can lead to damage to the joints, heart and other vital organs. This article discusses effective methods of disease control, preventive measures and recommendations for patients.

The formation of rheumatic heart defects is of great social importance. Because they ultimately lead to the development of chronic heart failure and other complications, patients lose their ability to work, and their quality of life deteriorates sharply. After the primary attack of acute rheumatic fever, heart defects develop in 20-25% of children, most often mitral, less often aortic valve insufficiency. In some patients, mitral stenosis or mitral-aortic defects are observed.

Keywords: Acute rheumatic fever, rheumatism, autoimmune process, joint inflammation, streptococcal infection, treatment.

НАИБОЛЕЕ ЧАСТЫЕ ПРИЧИНЫ, КЛИНИЧЕСКИЕ СИМПТОМЫ И ПРОФИЛАКТИКА РЕВМАТИЧЕСКИХ ЗАБОЛЕВАНИЙ У ДЕТЕЙ И ПОДРОСТКОВ

Аннотация. В статье дана подробная информация об основных этиологических факторах, клинических проявлениях, методах диагностики и современных стратегиях лечения ревматических заболеваний. Ревматизм в основном связан с аутоиммунными процессами и развивается в результате иммунного ответа, атакующего собственные ткани организма. Заболевание может приводить к поражению суставов, сердца и других жизненно важных органов. В статье рассматриваются эффективные методы контроля заболевания, профилактические меры и рекомендации для пациентов.

Формирование ревматических пороков сердца имеет большое социальное значение. Поскольку в конечном итоге они приводят к развитию хронической сердечной недостаточности и другим осложнениям, больные теряют трудоспособность, а качество их жизни резко ухудшается. После первичной атаки острой ревматической лихорадки у 20-25% детей развиваются пороки сердца, чаще всего недостаточность митрального, реже аортального клапана. У некоторых больных наблюдается митральный стеноз или митрально-аортальные пороки.

Ключевые слова: Острая ревматическая лихорадка, ревматизм, аутоиммунный процесс, воспаление суставов, стрептококковая инфекция, лечение.

INTRODUCTION.

Rheumatism (Acute rheumatic fever) is a toxic-immune inflammatory disease of connective tissue that develops after an acute infection (angina, pharyngitis) with group A beta-hemolytic streptococci, and is mainly characterized by damage to the cardiovascular system (carditis), joints (migratory polyarthritis), brain (chorea) and skin (erythema annulare, rheumatic nodules), and occurs most often among susceptible adolescents aged 7-14 years.

CAUSES OF ORIGIN: Factors influencing the development of rheumatic diseases are divided into several main groups:

1. Streptococcal infection; The main cause of rheumatic diseases is group A beta-hemolytic streptococci. These microorganisms often cause diseases such as angina, pharyngitis or scarlet fever in the throat. If this infection is not treated properly, the body's immune response is impaired and autoimmune processes begin.

2. Autoimmune process; Antibodies produced against streptococci sometimes begin to attack the body's own tissues (heart, joints, and nervous system). This autoimmune reaction causes inflammation and damage.

3. Genetic predisposition: Heredity plays a significant role in the development of rheumatism. Some people are more susceptible to this disease due to their genetic makeup.

4. Environmental and hygienic conditions: Wet and cold climates, poor hygiene conditions increase the risk of infections that lead to rheumatism.

5. Weakened immune system: People with weakened immune systems or chronic illnesses are at risk of developing rheumatism after contracting a streptococcal infection.

CLINICAL PRESENTATIONS: The main clinical symptoms of rheumatism are:

1. Inflammation of the joints (polyarthritis) Pain and swelling in the joints. Inflammation usually begins in large joints (knees, elbows). Symptoms worsen with movement.

2. Heart damage (rheumatic carditis) Heart rhythm disturbances. Damage to the right or left heart valve (stenosis or insufficiency). Shortness of breath, rapid fatigue.

3. Nervous system disorders (chorea) Uncontrolled muscle movements. Psychological changes (irritability, depression).

4. Skin and other changes, The appearance of rheumatic nodules under the skin. Red spots or changes on the surface of the skin.

Analysis Results: Arthritis. Rheumatic polyarthritis is observed in 60-100% of patients and is of important diagnostic importance. In it, it is necessary to pay attention to the following.

Carditis. One of the main manifestations of acute rheumatic fever (90-95%), which determines the severity and outcome of the disease. It is most often caused by valvulitis of the mitral, less often aortic valves, characterized by the appearance of organic murmurs in the heart area and its concomitant myopericarditis.

The clinical manifestations of acute rheumatic fever are diverse, and in young people, 3-4 weeks after the acute angina, a sudden increase in body temperature, asymmetric migratory pain in large joints (most often the knees) and signs of carditis (chest pain, palpitations, shortness of breath, etc.) are observed. In some cases, the disease is not clearly manifested, and patients are dominated by symptoms of arthritis, carditis, or, in very rare cases, chorea. In adolescents and young people, acute rheumatic fever is accompanied by a gradual subfebrile increase in body temperature, arthralgia, mainly in large joints, and mild carditis. In most patients, relapses of acute rheumatic fever are also associated with a previous streptococcal infection of the larynx, and carditis is more likely to develop.

DIAGNOSTIC METHODS.

The following tests play an important role in diagnosing rheumatism:

Laboratory tests, ASO (antistreptolysin O) level: To confirm streptococcal infection. Complete blood count: Leukocytosis and anemia may be detected.

2.Instrumental diagnostics, ECG (electrocardiography): Detects heart rhythm disturbances. Echocardiography: To detect heart valve damage. X-ray: To assess the anatomical condition of the joints.

3.Clinical evaluation, Examination by a doctor of inflamed joints, heart sounds and other signs.

TREATMENT METHODS

1.Antibiotic therapy, Penicillin-based drugs are used to eliminate streptococcal infection. Macrolides (erythromycin) are used in allergic patients.

2.Anti-inflammatory therapy, Nonsteroidal anti-inflammatory drugs (NSAIDs): Diclofenac, ibuprofen. Glucocorticoids: Prednisolone for the treatment of severe inflammation.

3.Cardiac support, Diuretics and beta-blockers are used to improve cardiac function.

4.Prevention and rehabilitation, Long-term prophylactic administration of antibiotics. Exercise and sanatorium treatment.

COMPLICATIONS: Heart valve stenosis or insufficiency. Chronic joint diseases. Heart failure and arrhythmias.

CONCLUSION.

According to experts from the American Heart Association, all patients with chronic rheumatic heart disease are at risk for developing infective endocarditis.

Therefore, before all medical procedures that are accompanied by bacteremia (tooth extraction, tonsillectomy, adenoidectomy, biliary and intestinal surgery, etc.), they are necessarily prescribed antibiotics.

Rheumatic disease, if not diagnosed early and treated properly, can cause significant damage to the heart and other vital organs. Therefore, it is important to pay attention to the clinical signs and causes of the disease. With the help of modern diagnostic and treatment methods, the complications of rheumatism can be reduced and the quality of life of patients can be improved. Preventing the recurrence of the disease through preventive measures is also important.

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