Rheumatology

Rheumatology is a sub-specialty in internal medicine and pediatrics, devoted to diagnosis and therapy of rheumatic diseases. Clinicians who specialize in Rheumatology areas called rheumatologists. Rheumatologists deal mainly with clinical problems involving joints, soft tissues, autoimmune diseases, vacuities, and heritable connective tissue disorders.

Many of these diseases are immediately known as disorders of the resistant system, and Rheumatology is increasingly the subject of immunology. One of the major changes in modern Rheumatology is the evolution of new drugs called biologics, or disease modifying agents, which can control severe disease more effectively.

The psychiatric symptoms of rheumatic fever

Rheumatic fever can also have a temporary nervous system disorder once known as St. Vitus' dance. Today it is called chorea, or Sydenham's chorea. This is a nervous disorder -- characterized by rapid, jerky, involuntary motions of the body -- occurring mainly in childhood or during pregnancy and closely associated with rheumatic fever. It may appear up to six months after rheumatic fever has made. People with soft cases of chorea may find it hard to concentrate or write. More severe cases can cause the muscles of the arms, legs or face to twitch or jerk uncontrollably. Symptoms typically begin one to five weeks after a bout of strep throat, although in some instances the infection may have been too mild to have been made out. Sometimes, people with rheumatic fever do not remember giving birth experienced a painful throat.

The knees, ankles, elbows and wrists are the joints most likely to become swollen from rheumatic fever. The pain often migrates from one junction to another. However, the greatest danger from the disease is the damage it can do with the heart. In more than half of all cases, rheumatic fever scars the valves of the substance, forcing this vital organ to play harder to pump stock. Over a period of months or even years -- especially if the disease strikes again -- this damage to the substance can lead to a dangerous condition known as rheumatic heart disease, which occurs in up to one-third of cases and can finally induce the pump to die. Symptoms of rheumatic fever include:

- High Temperature (fever) of or above 39C (102F)
- Blotchy red skin rash
- Headache
- Nosebleeds
- Fatigue
- Excessive sweating
- Chest pain
- Shortness of breath
- Abdominal pain
- Vomiting

- Joint pain and swelling (often begins in knees and ankles)
- Irritability
- Shortened attention span
- Changes in personality (moodiness, unusual laughing/crying)
- Small nodules under the skin

As the need for rest is decreased, some provision must be taken in for diversion activities that will help eliminate boredom and save the child content. The psychological effects of a protracted period of enforced dependence on others must as well be looked at. The parents and the kid will require encouragement and assistance in the transition from total dependence to relative independence. Parents and family members also will call for funding and guidance during adjustment to home care of the kid. Referral to the public health nurse or home health care agency can help provide continuity of concern and kept funding.

Prevention. Preventive maintenance is extremely important, especially when rheumatic fever has once taken place, since it tends to return unless precautionary steps are required. The patient is given penicillin, by word of mouth every day or by intramuscular injection once a month, for many years in parliamentary procedure to prevent streptococcal infection. A good nutritious diet and sufficient sleep are important. Administration of antibiotics to all patients with a history of rheumatic fever undergoing even minor surgical operation, including tooth extraction, is significant in preventing bacterial endocarditis. Prompt and efficient handling of “strep throat” among the cosmopolitan population has cut the incidence of rheumatic fever.

Cause of Rheumatic fever

Rheumatic fever results from an inflammatory reaction to certain group A streptococcus bacteria. The body produces antibodies to fight the bacteria, but instead the antibodies attack a different target: the body's own tissues, so it is a type of autoimmune disorder. The antibodies begin with the joints and often move on to the heart and surrounding tissues. Because only a small fraction (generally less than 0.3%) of people with strep throat ever develops rheumatic fever, medical experts say that other factors, such as a weakened immune system, must also be involved in the development of the disease.

Diagnosing Rheumatic Fever

A checklist known as the 'Jones Criteria' is used to help in the diagnosis process.

The Jones Criteria checks whether you have certain signs and symptoms strongly associated with rheumatic fever. These signs and symptoms are collectively known as criteria.

There are two types of criteria:

- Major criteria: signs and symptoms strongly associated with rheumatic fever
- Minor criteria: signs and symptoms moderately associated with rheumatic fever.

Major criteria	Minor Criteria
Carditis: inflammation of the heart	Arthralgia: joint pain, but less severe than arthritis joint pain
Polyarthritis: where several joints become stiff, painful and swollen	Fever: usually over 39ºC (102ºF)
Chorea: jerky involuntary body movements	Elevated ESR or CRP: erythrocyte sedimentation rate (ESR) and C reactive protein (CRP) are both types of blood tests that can detect inflammatory conditions
Erythema marginatum: red or pink ring-like rash on the skin	Prolonged PR interval on an ECG: irregular heart rhythm
Subcutaneous nodules: small lumps under the skin that tend appear on the elbows, knees, ankles and knuckles	----------

Treatments for rheumatic fever

Rheumatic fever usually treated in hospital, so that your heart can be carefully monitored.There is no cure for rheumatic fever so treatment focuses on three objectives:

- To eradicate any streptococcal bacteria that may be remaining in your body with antibiotics,
- To help relieve symptoms with anti-inflammatory medicine and
- To prevent long-term damage to your heart

Antibiotics

It is usually recommended that given injections of antibiotics (intravenous antibiotics) every two to three weeks over the course of many years. In cases of children, it is usually recommended that they are treated with antibiotics until they reach adulthood.

Anti-inflammatory medicine

Anti-inflammatory medications can be used to relieve symptoms of joint pain and swelling (arthritis), and in severe cases, reduce inflammation of the heart.

Common type of anti-inflammatory medicines used to relieve arthritis include the non-steroidal anti-inflammatory drugs (NSAIDs) type of painkillers such asibuprofen and aspirin.

If the results of your electrocardiogram (ECG) show that you have moderate to severe inflammation of the heart, you will probably be treated with a type of steroid medication called Prednisolone.

Other treatments

If you are experiencing symptoms of chorea (uncontrollable physical jerking), you may be given a type of medication known as a neuroleptic. Neuroleptics work by blocking the nerve signals that are responsible for chorea.

If inflammation of the heart is severe, surgery may eventually be necessary to repair damage to the heart valves to prevent heart failure.

Prevention of rheumatic fever

The best way to prevent rheumatic fever is to fully treat all strep throat and scarlet fever infections. Make sure your child completes all prescribed doses of medication. In addition, schedule a follow-up visit to ensure that your child is free from the strep bacteria antibodies. Once they develop, the symptoms of rheumatic fever can last for months. Rheumatic fever can cause long-term complications in certain situations. One of the most prevalent complications is rheumatic heart disease. Other heart conditions include:

- **Valve stenosis**—a narrowing of the valve
- **Valve regurgitation**—a leak in the valve that causes blood to flow in the wrong direction
- **Heart muscle damage**—inflammation can weaken the heart muscle, which can decrease the heart's ability to pump blood effectively
- **Atrial fibrillation**—irregular heart beat (in the upper chambers)
- **Heart failure**—heart can no longer pump blood to all parts of the body

The long-term effects of rheumatic fever can be disabled if your child had a severe case. Some of the damage caused by the illness might not show up until years later. Be aware of long-term effects as your child grows older. Children who suffer from the long-term damage related to rheumatic fever may be eligible for special education and other related services.

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