

Acute Rheumatic Fever

Acute rheumatic fever is a disease that can occur following an infection caused by the Group A streptococcus bacterium. If untreated, a 'strep throat' infection can lead to inflammation in other parts of the body, particularly the joints, brain and heart. Without regular antibiotic treatment, further attacks of rheumatic fever can lead to serious damage of the heart valves. This is known as rheumatic heart disease.

Acute rheumatic fever is a disease of poverty. Overcrowding in the home increases the chances of getting a strep infection, which in turn increases the chances of getting acute rheumatic fever. Indigenous children in central and northern Australia aged between five and 14 years are at a very high risk of developing acute rheumatic fever and rheumatic heart disease.

Signs and Symptoms:

The typical initial symptoms include:

- fever
- malaise (feeling generally quite unwell)
- painful, swollen joints (which may present as sudden refusal to bear weight or to use a limb)
- unusual jerky movements.

Investigations and Treatment

Someone suspected of having acute rheumatic fever should be hospitalised. There is no specific test to diagnose acute rheumatic fever. However, a number of tests will be done including an electrocardiogram or ECG (to examine the rhythm of the heart) and an echocardiogram or ECHO (a 'scan' of the heart to check on the heart valves).

Specific treatment includes:

- aspirin (or another anti-inflammatory drug) to relieve painful swelling of the joints
- penicillin (usually given by injection) to ensure that any remaining 'strep' bacteria are cleared
- bed rest may be required for those with severe rheumatic heart disease.

Prevention:

It is essential that anyone who has had an episode of acute rheumatic fever, or that person's parents or guardian, are made fully aware of the disease, and the importance of preventing damage to the heart valves.

The most important measure to prevent further strep throats (and therefore further attacks of acute rheumatic fever) is regular antibiotic therapy, preferably a monthly injection of penicillin. These injections will need to be continued for many years, until a specialist doctor advises that they can be stopped. It is also very important that someone who has had acute rheumatic fever receives regular medical and dental checkups.

A coordinated approach is essential for the effective long-term management of acute rheumatic fever and rheumatic heart disease patients. For this reason, a Rheumatic Heart Disease Register and Control Program has been established in Queensland. This program has five coordinators situated throughout Queensland.

Health outcome:

A person who has had an episode of acute rheumatic fever is likely to get another 'attack' following another strep throat. Each episode of acute rheumatic fever increases the chances of the heart valves being damaged, and therefore worsening rheumatic heart disease. People with damaged heart valves may need heart surgery to repair or replace the affected valves.

Other resources:

Further information can be obtained from the Rheumatic Heart Disease Register and Control Program at:
RhdRegister@health.qld.gov.au

Related Content

Steer AC, Carapetis JR. Acute rheumatic fever and rheumatic heart disease in Indigenous populations. *Pediatr Clin N Am* 2009; 56: 1401-1419.

Health Insite:

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