

## Treatment and Diagnosis of Chronic Rheumatic Heart Disease

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### DESCRIPTION

Chronic Rheumatic Heart Disease (CRHD) is a condition in which the heart valves get damaged permanently by rheumatic fever. The damage to the heart valve occurs shortly after untreated or under-treated streptococcal infection such as strep throat or scarlet fever. An immune response causes an inflammatory condition to the body which can result in continuing valve damage. Clinical classification of heart defects which combined are mitral (stenosis+insufficiency), aortic (it is necessary to indicate the predominance or severity of stenosis or insufficiency), tricuspid (stenosis+insufficiency). Combining one with the other are mitral aortic, mitral tricuspid, mitral aortic tricuspid complications, heart arrhythmias, circulatory failure, thromboembolism and infarcts [1,2].

Post infectious complication of tonsillitis (angina) or pharyngitis is caused by group A  $\beta$ -hemolytic streptococcus, in the form of systemic inflammatory connective tissue disease. It is caused with preferential localization in cardiovascular system (carditis), joints (migrating polyarthritis), brain (chorea), skin (annular erythema, rheumatic nodules) and also develops in predisposed individuals mainly in adolescents (7-15 years old). Chronic rheumatic heart disease without a defect is established in the presence of marginal fibrosis of the valve flaps without regurgitation, which is specified by echocardiography. Chronic rheumatic heart disease with a defect is established in the presence of the first detected heart disease. It is necessary if possible to exclude other causes of its formation like infectious endocarditis, primary anti-phospholipid syndrome, calcinosis of the degenerative genesis valve. It is considered as a new episode of acute rheumatic fever (but not a relapse of the first), manifested mainly by carditis, less often carditis and polyarthritis, rarely by chorea. The final diagnosis is possible only after the elimination of inter current disease and complications associated with heart defects. Cardiac damage of the myopericarditis in the absence of valvulitis is not a characteristic of acute rheumatic fever [3,4].

### Diagnosis

Basic diagnosis are physical examination of the patient; general blood test; biochemical blood analysis like C reactive protein,

seromucoid, rheumatoid factor, ALT, ACT, creatinine phosphokinase. Immunological blood test such as IgG, IgM, IgA, electrocardiography, echocardiography, sowing a moss swab on streptococcus and antibiotic sensitivity, general urine analysis, otorhinolaryngologists consultation. Additional diagnostics (assigned by indication) are total protein and protein fractions, creatinine, bilirubin, radiography of thoracic organs, consultation of cardiac surgeon, neuropathologist.

### Treatment

Primary prevention is detection of angina, pharyngitis. Adequate treatment for 10 days with antibacterial drugs, secondary prophylaxis is aimed at preventing repeated attacks and progression of the disease in persons who have undergone acute rheumatic fever, and prescribes prolonged penicillin administration throughout the year.

### CONCLUSION

Approximate periods of temporary disability in acute rheumatic fever are acute rheumatic fever without heart damage is for 20-40 days, acute rheumatic fever with carditis, polyarthralgia for 30-45 days, and acute rheumatic fever with fever expressed by carditis with heart failure, polyserositis for 60-95 days. Some of the complications of rheumatic heart disease are heart failure which can occur either from a severely narrowed or leaking heart valve, bacterial endocarditis is an infection of the inner lining of the heart, and may occur when rheumatic fever damages the heart valves, complications of pregnancy and delivery due to heart damage, ruptured heart valve is a medical emergency that must be treated with surgery to replace or repair the heart valve.

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**Received:** 29-Nov-2022; **Manuscript No.** AOA-22-21056; **Editor assigned:** 01-Dec-2022; **PreQC.** No. AOA-22-21056 (PQ); **Reviewed:** 15-Dec-2022; **QC.** No. AOA-22-21056; **Revised:** 22-Dec-2022; **Manuscript No.** AOA-22-21056 (R); **Published:** 29-Dec-2022, DOI: 10.35248/2329-9495.22.S3.002.

**Citation:** Tan SH (2022) Treatment and Diagnosis of Chronic Rheumatic Heart Disease. *Angiol Open Access.* S3:002.

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