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Rheumatic Fever

Abstract

RF and RHD continue to be major problems in developing countries, resulting in significant morbidity and mortality. Approximately 3% (during streptococcal epidemics) and 0.3% (during nonepidemic) of individuals who have not had RF will develop the illness following an untreated streptococcal pharyngitis. Pathogenesis of RF is still not completely understood. Epidemiology of RF is similar to streptococcal pharyngitis and the most common age is 5 to 15 years.

Pathogenesis of RF is likely related to an abnormal immune response to a preceding GAS infection; both humoral and cell-mediated immune responses contribute to the clinical manifestations, including acute carditis and chronic RHD.

The most common clinical manifestations of RF are arthritis, carditis, and chorea; carditis and subsequent RHD are responsible for long-term morbidity and mortality.

Diagnostic criteria should serve as guidelines to assist in the diagnosis of RF.

Valvular dysfunction (rather than myocarditis or pericarditis) is the most important abnormality in both acute rheumatic carditis and chronic RHD.

Echocardiography should be performed in all patients with RF to confirm and quantify valvular regurgitation, differentiating acute RHD from innocent murmurs or congenital heart disease, serial evaluation of patients with known RHD, and for identifying subclinical rheumatic cardiac involvement.

The most important factors influencing the likelihood and severity of chronic RHD are the severity of the initial carditis and RF recurrences.

Primary prophylaxis (treatment of GAS pharyngitis) is effective in preventing RF, but many cases go untreated (very mild symptoms or subclinical).

The most effective way to decrease the burden of RF and RHD in developing countries may be via development of an effective vaccine against GAS (primordial prophylaxis).

Percutaneous balloon valvotomy is effective in rheumatic mitral stenosis, mitral and aortic valve repair (instead of replacement) are becoming more prevalent.

Keywords: Rheumatic Fever, Rheumatic Heart Disease, prophylaxis, treatment.