

RECURRENT RHEUMATIC ACTIVITY

By

Dr. Muhammad Ilyas, FRCP, FACC*

Diagnosis of rheumatic fever (RF), under specified criteria, is a difficult bed-side exercise, and diagnosis of recurrences or recurrent rheumatic activity (RRA) is certainly more challenging. The recurrence rate of RF is highest in the first year after the original episode and decreases in the subsequent two years (El-Sadr and Taranta 1979). In the secondary prophylaxis programme in New Delhi streptococcal infection rate of 0.14 per patient-year and rheumatic recurrence rate of 0.02 per patient-year has been reported (Padmavati 1978). Recurrence rate of RF has been reported in 19% of cases in a long term follow-up (Chen et al. 1981). Recurrent rheumatic activity (RRA) appears to have an important influence in the genesis of juvenile mitral stenosis (Ilyas et al. 1980).

In children with rheumatic heart disease (RHD) congestive cardiac failure cannot be utilised as an index of rheumatic activity but the presence of pericarditis is an important discerning factor. Erythema marginatum and subcutaneous nodules are present in less than 5% cases of acute RF in Pakistan in contrast to about 15-20% of cases in the European series (Ilyas 1980). In fact, Roy (1973) had not seen a case of erythema marginatum in RF in India. Even in the western centres, Jones' criteria graded RF is now less commonly encountered. Out of

124 cases of acute RF hospitalised in Minneapolis (1976), review scrutiny showed that 83(70%) cases did not have acute illness; and out of the remaining 41 cases of RF only seventeen (41%) cases adequately fulfilled the Jones' criteria (Rice and Kaplan 1979).

Chen and co-workers (1981) have reviewed 89 children with RF showing; arthritis 62.9%, carditis 55% and chroea 19%. The first attack occurred mostly between 6-12 years and children were followed-up from 20 months-15 years (mean 61 months). Revised Jones' criteria are considered unsatisfactory in the diagnosis of rheumatic carditis of insidious onset, carditis with recurrent RF and in carditis with low ASO titre (Okuni 1971). High incidence of innocent murmurs in children also makes the diagnosis of RRA more difficult. In 12,050 normal black school children (2-18 years), innocent systolic murmurs were detected in 72% and innocent mid-diastolic murmur in 0.27% (McLarven et al. 1980).

Patient with RHD presenting with fever, arthritis and abdominal pain require differentiation of rheumatic recurrence (RRA) from bacterial endocarditis; the latter is associated with marked anaemia as well as red blood cells in the urine, with a completely different management

*Cardiologist, Muhammadi Hospital Peshawar.

protocol (Bisno et al. 1981). Salmonella and other infections are also to be differentiated from RRA. The rise in ASO titre in RF or RRA is influenced by the nutritional status of the patient, laboratory accuracy, extent of infection and time of blood sampling after the infection.

Rising ASO titres and positive throat culture for streptococcus beta hemolyticus are diagnostic hallmarks of acute RF or RRA. ASO titres were estimated in 1,225 children with RHD and were higher than 200 units in 165 (13%) children (Shreshta et al. 1979). Normal range of anti-streptolysin O titre, perhaps, varies in different communities and further determination for various centres is necessary (Sharifullah 1981). In a comparative testing against anti-streptolysin O and anti-DNase antibodies tests, streptozyme, a relatively easier test, offered no greater sensitivity for antibodies to extracellular products of group-A, streptococci (Kaplan et al. 1980). Repeated variation in the strength of streptozyme reagent limits its standardisation, and it also possibly measures antibodies to some other antigens of the group-A streptococci (Bisno et al. 1976). Increased circulating cardiac-auto-antibodies have been reported in cases of RHD with history of RF (Ida and Shiokawa et al. 1979).

Secondary chemoprophylaxis, the key to the control of RRA, remains fraught with non-compliance, cost of treatment and hesitancy of the general practitioners and paramedics to cooperate in penicillin prophylaxis programme. Cherian and co-workers (1979) have studied the minimum inhibitory concentrations of penicillin against the common serotypes of streptococci and found that, irrespective of the causative serotype, the dose schedule eradicated or prophylactic, could

be same. General practitioners' bias for broad spectrum antibiotics for treatment of pharyngitis, for supposed quicker results and lesser side effects, needs reorientation towards penicillin as the drug of first choice.

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