Rheumatic Fever-Heart Disease in Pakistan

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Introduction

Pakistan is located in the geographic belt of rheumatic fever-heart disease, alongwith Nepal, India, Afghanistan, Iran, Egypt, Morocco and other African countries. Failure of control of this ailment is linked with socio-economical maldevelopment in these countries. Preventability of this disease has not taken roots in our country, and the ghost of this disease which licks the joints and bites the heart still profoundly exists. Although more centres are now involved in studies on treatment and prevention of rheumatic heart disease, consensus on preventive strategy, specially on secondary prophylaxis, does not exist. This report summarises prevalence information and efforts on prevention of rheumatic fever-heart disease in Pakistan.

Epidemiological Profile

Studies on rheumatic fever signify preponderance of cardiac lesions and paucity of skin manifestions in this country (Table I).[1-4]

Table 1: Rheumatic Fever Pattern in Pakistan.

Group	*City*	*Year*	*Carditis*	*Arthritis*	*Skin*
Rabinson et al.[1]	Karachi	1966	73%	59%	5%
Rahimtoola et al.[2]	Karachi	1972	75%	30%	2.5%
Shaukat Malik et al.[3]	Islamabad	1978	65%	48%	2.5%
Ilyas et al.[7]	Peshawar	1979	68%	39%	10%

Hospital population data from this country reveal rheumatic heart as the commonest cardiovascular problem in children and adolescents, and constitute 4% of all medical cases and 23% of all cardiac cases.[5]

Rheumatic heart disease surveys in school children have shown low prevelence in selected high income groups in Karachi and higher prevalence in Peshawar children and highest prevalence in children in the mountains of Chitral (Table 2)[6-7]. Our data compared well with reports from India, Egypt and Morocco (Table 3).[8-9-10]

Table 2: Rheumatic Heart Disease in School Children.

Group	Year	Country	Years	Children	Pervalence Per 1000
Abbasi et al.[6]	1966	Karachi	8—14	4,002	1.8
Ilyas et al.[7]	1977	Peshawar	5—15	17,772	7
		Chitral	5—15	2,678	11

Table 3: Comparative Prevalence of Rheumativ Heart Disease

Group	Year	City	Age Years	Children	Pervalence Per 1000
Padmavati et al.[8]	1962	Delhi	5—10	12,000	6
Tazi[9]	1970	Rabat	6—14	5,000	9.5
El-Kholly[10]	1972	Qualab	6—12	10,000	10
Ilyas et al.[7]	1977	Peshawar	5—15	17,772	7
		Chitral	5—15	2,678	11

With regards to the pattern of rheumatic heart disease, in our study mitral regurgitation was the commonest lesion and in only one quarter of the cases the diagnosis was known and the children were receiving some sort of treatment.[7]

Juvenile Mitral Stenosis

Pure or predominant mitral stenosis below the age of 20 years was found in 46 children in a school population of 20,450 children, constituting 30 percent of rheumatic disease[7]. During a 5 years period 53 cases of juvenile mitral stenosis were seen in our Unit amounting to 34% of rheumatic heart disease and 4% of mitral valve disease[5]. The pathogenosis of juvenile mitral valve stenosis is not known but recurrent throat infections, malnutrition and racial influence are possible factors. In a study of left auricular biopsy Ashoff bodies have been found in 10% of surgical cases of mitral stenosis, which is lower than the European series[11].

Failure of Control

The reasons for ineffective control of rheumatic fever-heart disease in our country include unsatisfactory improvement in socio-economical conditions, lack of concentrated efforts for prevention, ignorance of the epidemiological lesion that the disease in preventable and uncertain approach towards secondary prevention.

Primary prevention has to be instituted more vigorously with improvement in school health programme. Education of school doctors and health personnel is recommended. Education of teachers and parents about the simple message that sore throat can lead to heart disease, and that timely treatment with pencillin can prevent heart affliction. Education through posters and lectures for the lay community is being carried out.[12]

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