

First Presentation of Rheumatic Fever in Preschool Egyptian Children Younger Than 5 Years



Pakinam A. Marzouk , Hala S. Hamza , Naglaa A. Mosaad , Soha M. Emam , Aya M.Fattouh
Cardiology department, Cairo University Specialized Pediatric Hospitals,
Cairo, Egypt.



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OBJECTIVES :

- Rheumatic fever usually occurs in children between 5 to 15 years, less frequently in younger age.
- The aim of this study was to detect the frequency of first presentation rheumatic fever in ages less than 5 years and determining the pattern of presentation in this age group.

METHODS :

- This retrospective study was conducted on Egyptian children presenting to a specialized rheumatic fever clinic from March 2014 to March 2016.
- The data of children younger than 5 years presenting with proven rheumatic fever according to the modified Jones criteria were recorded.
- These data included demographic data, clinical presentations, laboratory findings and echocardiographic findings.

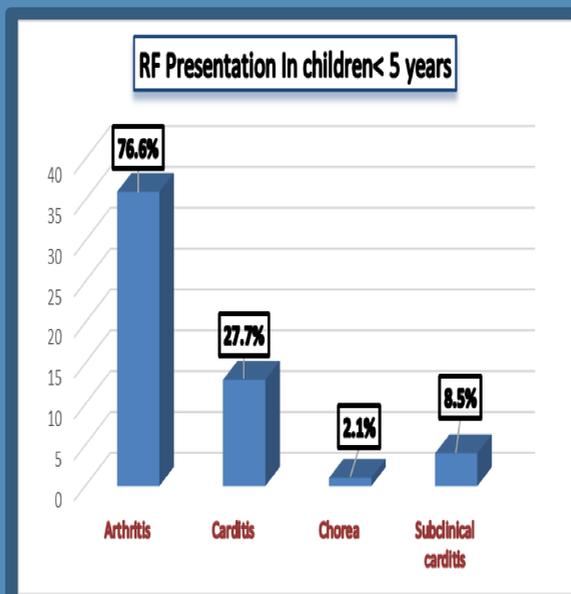
RESULTS :

- Out of 621 patients diagnosed with Proven rheumatic fever; 47 (7.5%) were younger than 5 years.
- Twenty six (55.3%) were females and twenty one (44.7%) were males.

Table: Rheumatic fever manifestations in patients ≤ 5 years

RF Manifestations	Number (Total=47)	Percentage
Arthritis	36	(76.6%)
Limiting Polyarthralgia	5	(10.6%)
Carditis	13	(27.7%)
Subclinical carditis	4	(8.5%)
Chorea	1	(2.1%)
Fever	24	(51%)
Non limiting arthralgia	16	(34%)
Elevated ESR and CRP	21	(44.7%)
Positive Family History	13	(27.7%)

- Positive family history was encountered in 13 patients (27.7%).
- Their most common presentations were arthritis in 36 (76.6%), carditis in 13 (27.7%) and chorea in only 1 patient (2.1%).
- Subclinical carditis was detected by echocardiography in 4 patients (8.5%).



- The most common valvular lesion encountered was mitral regurge in 16 (34%) followed by aortic regurge in 7 patients (14.9%). Both mitral and aortic regurge were present in 6 patients (12.8%).

- Rheumatic morphological changes in the mitral valve were encountered in 9 patients in the form of :

- Thickened mitral valve leaflets
- Thick subvalvular apparatus
- Restricted posterior mitral valve leaflets
- Lack of systolic coaptation
- Mitral valve prolapse

- Eight patients out of nine had 2 or more rheumatic mitral morphological changes while one patient had only 1 rheumatic mitral morphological change.
- Thickened aortic valve leaflets were encountered in 3 patients

CONCLUSION :

- Acute rheumatic fever can occur in children younger than 5 years, thus the possibility of rheumatic fever should be adequately investigated in these young patients presenting with arthritis, carditis or chorea especially in developing countries like Egypt.
- Echocardiography is an essential tool to diagnose subclinical carditis which can influence the management strategy.
- Long-term follow-up is mandatory to determine the outcome for young children with subclinical echocardiographic evidence of carditis.

Valvular Rheumatic Morphological changes in our patients

