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Recurrence Of Rheumatic Fever During Prophylaxis And Postoperative Valve Procedures And Some Of Its Psychological Effects

THESIS
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ABSTRACT

Rheumatic fever is a multi-system-non-suppurative, inflammatory disease triggered by GAβHS infection of the upper respiratory tract. Patients in whom RF develops have a marked tendency to suffer from recurrent attack after subsequent GAβHS infection of the upper respiratory tract. **Aim of the study**: Determining the risk factors causing the recurrence of RF during prophylaxis with LAP and post operative valve procedures and identifying the possible associating social and psychological repercussion. Patients and methods: 128 pediatric patients had RHD were followed for one year. These patients were divided into 2 groups. Group 1 included 64 patients under medical treatment and the second group included 64 patients whom had surgical procedures. Full clinical examination, plain x-ray of chest and heart, complete blood picture, ESR, CRP, ASOT, ECG, & echo-Doppler were performed. **Results**: The recurrence of RF is a dangerous problem which affects the Egyptian children .Recurrence was present in 47% of cases under medical treatment versus to 31% of cases with surgical procedures. Most of the clinical manifestations, major and minor were presented in these patients. Family history and the compliance of patients for restricted program of LAP prophylaxis were very important factors affecting the recurrence of RF .Different statistical tests were applied like Student test & χ^2. **In conclusion**, the study ended with the following conclusions. Recurrence of RF should be considered and should be managed perfectly in addition

to the secondary prophylaxis to avoid squeale of RF. The following factors or variables were associated with increase or more likely occurrence of recurrence of RF age less than 12 yrs., family history, in addition to male sex, tonsillectomy, psychiatric troubles and patients being under medical treatment were associated with slightly but not significantly increase of recurrence. Middle and high SEL were associated with decrease of recurrence. Also, regular and irregular LAP prophylaxis were associated significant decrease of recurrence

Key words:

1. Rheumatic fever
2. Recurrence of RF.
3. Psychiology
4. Prophylaxis
5. Valves

LIST OF ABBREVIATIONS

βHGAS	Beta hemolytic group A streptococci
a PL	Antiphospholipid
A.S.O.T	Antistreptolysin O titre
Ao.R	Aortic Regurgitation.
Ao.S	Aortic stenosis
APSGN	Acute post-streptococcal glomerulonpehritis
ARF	Acute rheumatic fever
CHF	Congestive heart failure
CI	Confidence interval
C.R.P.	C. reactive protein
CLp	Cardiolipin
CRHD	Chronic rheumatic heart disease
E.S.R	Erythrocyte sedmentation rate
GAS	Group A streptococci
G.C.S	Group C streptococci
G.G.S	Group G streptococci
IL	Interleukin
LA	Left atrium

LAP	Long acting penicillin
LV	Left ventricle
M.R.	Mitral Regurgitation.
M.S.	Mitral stenosis
MPA	Main pulmonary artery
NK	Natural killer cells
OR	Odd's ratio
OS	Opening snap
RF	Rheumatic fever
RHD	Rheumatic heart disease
RV	Right ventricle
SEL	Socioeconomic Level
T.R.	Tricusped Regurgitation.

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AIM OF THE STUDY

The aims of this study are as follows:

1. Determining the risk factors causing the recurrence of rheumatic fever during prophylaxis with benzathine penicillin G and postoperative valve procedure.
2. Identifying the possible associating social and psychological repercussions of such conditions.

INTRODUCTION

The first step in the sequence leading to RF is streptococcal pharyngitis. The association of a sore throat with RF was described by Cheadle over 100 years age. In 1900 Poynton and Payne reported that RF was caused by "a displostreptococcus that entered the body by way of the tonsils."Combs in 1924, also attributed RF to this streptococcus rheumatics" of Poynton, noting that, the reaction was proliferative and not "suppurative". Clinicians recognized for years that RF, followed epidemics of scarlet fever. The etiology became better defined during the early 1930s when Dr. Rebecca Lancefield defined, the subgroups of streptococci based on the carbohydrate moieties in the cell wall. GAS was then recognized as the most significant human pathogen, ***(McCarty and Lanceflele, 1955).*** Epidemiological studies by Collis, in England, and Cobum, in the United States, during the 1930s confirmed the close relationship between streptococcal pharyngitis and the development of RF. During World War II studies by ***(Rammelkamp et aL1952),*** demonstrated that RF could by prevented by treating streptococcal pharyngitis with penicillin. These investigations provided the final