

## ABSTRACT

The results showed that the isolation rate of group A streptococci in 1,611 sore throat patients who visited Maharaj Nakorn Chiang Mai Hospital and Maternal and Child Health Center Region V, Chiang Mai during November 1984 to December 1985 was 6.39%. The recovery of group A streptococci from 181 old cases of acute rheumatic fever and/or rheumatic heart disease patients was 2.21%. From the 23 new case of ARF and/or RHD patients, the isolation was 17.39%. In school children, the recovery rate varied from 0.99% to 15.73% depended on the school and the time of the isolation. Group A streptococci in both patients and school children predominate in the age group 5-14 years.

Among 103 strains of group A streptococci in sore throat patients, T-3/13/B3264, T-5/11, T-8/25/Imp19, T-4/28 and untypable strains were identified in the following proportions: 19.42%, 18.45%, 17.48%, 15.53% and 12.62% respectively. In the new case of ARF and/or RHD patients, each of T-5/12/27, T-8/25/Imp19, T-6 and an untypable strain was found. Only one strain of T-3/13/B3264 and three strains of T-8/25/Imp19 were isolated from the throats of old cases of ARF and/or RHD patients. In healthy school children, T-49 and untypable strains predominate. For pyoderma patients, T-11 was the predominant type. Oral penicillin treatment in school children who were carries of group A streptococci failed to eradicate the organism in

9.18% of cases with 10 days. All group A streptococci isolates were susceptible to chloramphenicol, penicillin, ampicillin, erythromycin, cefalothin and cefoxitin. The mean values of MIC/MBC of group A streptococci from sore throat patients, ARF and/or RHD patients, school children and pyoderma patients were 0.022/0.025, 0.024/0.026, 0.024/0.031, and 0.027/0.031 ug/ml, respectively. Only two members from two different families were positive for group A streptococci. The serum penicillin levels in six patients with ARF and/or RHD patients reached peak levels on the first day of benzathine penicillin G(BPG) intramuscular injection, and then decreased rapidly. After 14 days of penicillin administration, two out of six patients had lower penicillin level than the MIC values of group A streptococci. The half-life values of serum penicillin in these six patients were 10.50, 7.00, 9.00, 6.25, 10.25 and 7.25 days. Only 47.83% of group A streptococci positive school children and 33.33% ARF and RHD patients had an increase in ASO titer.

ลิขสิทธิ์มหาวิทยาลัยเชียงใหม่

Copyright © by Chiang Mai University

All rights reserved