

### SUMMARY

Streptococcal infections are the most frequent bacterial infections in humans. Their importance is due to the non suppurative sequelae they produce, acute rheumatic fever and glomerulonephritis. The most common and most typical infection caused by streptococcus pyogenes is acute sore throat.

Streptococcus pyogenes produce a great variety of antigenic extra-cellular products. One of the most prominent products is the streptolysin O. Anti-streptolysin O appears in the serum of the patient infected with streptococcus pyogenes whether in the form of ordinary tonsillitis or when complicated by rheumatic fever or even in streptococcal carrier who is apparently healthy.

The object of the present work can be summarised in the following.

A) 130 individuals of different ages ( 5-50 years ) from out - patient clinic of Zifta hospital were examined clinically and bacteriologically.

Two blood samples were taken from every case ( one at time of swabbing and the other after 2-3 weeks ) to estimate A.S.O titres in their sera.

They were divided into 3 groups :

1- Apparently healthy individuals.

60 cases

2- Patients with acute streptococcal sore throat. 60 cases

3- Patients with rheumatic heart. 10 cases

B) The streptococcal carrier rate in the first group was 26.67% in whose the A.S.O titre was from 200-400 I.u. and usually fall after 2-3 weeks from less than 200 I.u. up to 300 I.u. while the A.S.O titre was less than 200 I.u. in non streptococcal carriers.

C) Hemolytic streptococci were isolated from 69.76 % of patients with acute sore throat. The A.S.O titre in their sera was from 200-500 I.U. which usually fall after subsidence of the infection. It was noticed that the high titre was among children aged from 5-15 years.

D) From the third group, the hemolytic streptococci were isolated from 20 % of the cases in whose the A.S.O titre was relatively high ( 600-800 I.u. ) and did not fall after 2 weeks.

While A.S.O titre in other cases ranged from 400-800 I.u. which may slightly fall after 2 weeks.

E) The latex test can be used as screening test as it does not define the exact level of the A.S.O titre.