

**ISOLATION AND IDENTIFICATION OF
ACCOMPANYING BACTERIA OF TONSILLITIS AND ITS
SENSETIVITY TO SOME MEDICAL PLANTS EXTRACTS**

ATHESIS

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BY

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Abstract

Throat Swabs (226 Sample) were collected from patients at the (E.N.T) ward-Saddam's Educational Hospital in AL-Diwaniya city during the period from the first of October (2001) until the first of July (2002). The aim of the study was to identify the bacteria responsible for tonsillitis and their Epidemic factors, and to investigate the effect of some antibiotics as well as medical plants extracts on this bacteria.

The results showed the dominance of the Beta haemolytic Streptococci (β HS) with the percentage (% 33.87), and *Streptococcus pyogenes* (GAS) with the percentage (% 22.67) as the first cause of tonsillitis, followed by *Staphylococcus aureus* with percentage of (% 21.03), then *Haemophilus influenzae* (% 12.29), and finally *Corynebacterium pseudodiphtheriticum* (% 8.74). Other kinds of bacteria could also be causing the disease in small percentages such as *Lactobacillus spp* (% 4.09) *Streptococcus pneumoniae* (% 4.09), and *Bacillus* (% 5.46).

Results also showed the dominance of group A Beta haemolytic Streptococci (GAS) on other groups since it constituted (% 66.93) of the total of (β HS) strains, followed by (GBS) with a percentage of (% 13.7) then (GDS) (% 11.29), and (GGS) (% 8.06). Furthermore, *Streptococcus pyogenes* was found to be the most dominant in case of acute tonsillitis with the percentage (% 27.65), while *Staphylococcus aureus* was the most dominant in case of Chronic tonsillitis with the percentage (% 25.28).

It was also found that (% 73.45) of the total number of infections were caused by one bacterial factor, and (% 26.54) of them were caused by more than one factors, while (% 3.53) of the cases did not show any apparent bacterial cause for the infection.

Highest percentage of infection was detected in the age group (3-10) years (% 25.66), while the lowest percentage (% 1.7) was detected in the age group (61-70) years. Sex was an important factor in the infection since males were found to be more susceptible to infection (% 56.19) of the total cases, as compared with females (% 43.8). Besides, the percentage of infection with (GAS) was much higher among males (% 63.85) than among females (% 36.14), while infection with *H. influenzae* was higher in females (% 64.44) than in males (% 35.55). On the other hand, the highest percentage of

infection was recorded in January (% 17.83) indicating that the rate of infection increased in winter and spring but decreased in summer . No significant correlation was noticed between the place of residence and Kind of infection (acute – chronic).

Strepc.pyogenes was the most sensitive bacteria to the antibiotics Amoxicillin (%72.28) , and to Chloramphenicol (%60.24), while *Staph.aureus* showed the highest sensitivity to Chloromphenicol (%74.02), *H.influenzae* to Amoxicillin (%97.77),and *Coryn.pseudodiphtheriticum* to Trimethoprim(%93.75) .

In addition , the extract of Myrtle demonstration an important prohibiting influence on *Strepc.pyogenes* , *Staph.aureus* , *H.influenzae* , and *Coryn.pseudodiphtheriticum* . Garlic extract had a powerful prohibiting influence on *Staph.aureus* and midle influence on *Strepc.pyogenes* and *H.influenzae* . Fenugreek extract had a powerful prohibiting influence on *Strepc.pyogenes* , *H.influenzae* . Finally the alcohlic extract of Black cumin seeds showed a weak prohibiting influence on *Staph.aureus* and *H.influenzae*, while its hydraulic extrct did not exhibited any effect on the bacteria responsible for the disease.