



Detection of biofilm formation and effect of vinegar on biofilm of *Streptococcus pyogenes* isolated from patients with tonsillitis

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Abstract:Background :Bacterial biofilms attached to living tissues that can be considered as an etiologic factor, among others. The biofilm existence supports a new concept to explain chronic infections.

Methods: *Streptococcus pyogenes* isolated from patients with tonsillitis admitted to Hilla Surgical Teaching Hospital in Babylon Governorate/Iraq was assessed for the biofilm formation by using Tissue culture plate.

Results:It was shown that biofilm formation was (76.9%) strong biofilm formation, (23%) moderately biofilm formation and no isolates that express non biofilm formation.

The effect of dates vinegar, apple vinegar and grape vinegar on bacterial isolates were studied and the results showed that date vinegar prevented biofilm formation in 13(100%) biofilm producer isolates of *S. pyogenes*. While Apple vinegar prevented biofilm formation in 12 (92.3%) biofilm producer isolates of *S. pyogenes*. Also, in the third type; Grape vinegar there were two isolates not eradicated, while 11 (84.6%) isolates were eradicated depending on biofilm criteria.

Keywords:*Streptococcus pyogenes* , Biofilm, tonsillitis, vinegar.