

EFFECT OF SOME AMINO ACIDS ON BIOFILM FOR STAPHYLOCOCCUS AUREUS.

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ABSTRACT

In this study , one hundred and fifteen clinical samples were collected from patient suffering from a variety of infections. Number of collected samples and types of infections were distributed as follows , Fifty one from wounds and burns infections , twenty eight from (UTI) infections , eleven from eye infections and twenty-five from ear infections .The initial identification , which included morphological features on culture media were done at the hospital site , and demonstrated that forty three 43 isolates were diagnosed as *Staphylococcus spp.* Twenty four isolates (from this forty three isolates) isolates were diagnosed as *S. aureus*. All the isolates (43) were tested for the cultural examination at the site of isolation and biochemical tests were performed , and the use of the system (Api20) in order to be diagnosed until species. The results showed that (24) from (43) isolates were diagnosed as *Staphylococcus aureus*. The results showed that (13) from (24) isolates were collected from wounds and burns infections, (5) from (24) isolates from (UTIs) , (4) from (24) isolates from Ear infections , and (2) from (24) isolates were collected from Eyes infections. All isolates were tested for methicillin antibiotics to determine the resistance and sensitive isolates for this antibiotics, the results showed that (21) from (24) isolates (87.5%) were resistant to methicillin and (3) from (24) isolates (12.5%) were sensitive for the same antibiotics. Six type of amino acids were used to study the impact or effects on the formation of (Biofilm) in bacteria and the amino acids are (Valin , Cysteine , Tryptophan , Phenylalanine , Tyrosine and Methionine) , the following concentrations of amino acids were used in the current study (0mM , 50mM , 100mM and 500mM) , the results showed that the rate of inhibition increases with the concentration of amino acids in the media and it prevent the biofilm formation with the gradually and proportional relationship .

Keyword : Amino acids , Biofilm , *Staphylococcus aureus* .