

Abstract

Staphylococcus aureus is one of the main causes of nosocomial infections and community acquired infections that can cause serious infections such as bacteremia , endocarditis , and infections of the skin. One of the factors pathogenic in this bacterium virulence factors such as fibrinogen and use fibronectin proteins they are for himself protection from the host immune system . Identification of these factors is essential recognition in the pathogenic bacteria. In this research study, the bacterium *Staphylococcus aureus* Sistan region can be studied. Basic information about the genes, virulence factors, *Staphylococcus aureus* bacteria and procedure documents and use as a library and Internet respectively. Samples of urine, blood , nasal secretions, lung Zabul hospital patients city was under review and collect technology and culture of the bacteria in the environment general and specific test specific type of bacteria approval was . Then the Culture proliferation their DNA of bacteria was extracted using PCR and primers specific frequency of genes encoding fibrinogen (*clfA*, *clfB*) and fibronectin (*fnbA*, *fnbB*) at 100 *Staphylococcus aureus* isolated in hospitals of Zabol city under study. Statistical analysis of the study results at the end of using spss software was conducted. The result of this study shows : 50% of samples showed at least one of the target genes. Prevalence of genes encoding fibrinogen (*clfA*, *clfB*), respectively, 19% and 16%, and fibronectin (*fnbA*, *fnbB*) 25% and 19% respectively be . Since the frequency of studied genes is less than their initial assumptions it is probably that studied strains in this city are different and show a low frequency. The location of these genes in the presence of bacteria positivity typical of direct proportion for example samples urine noting of our genes do not show. These results can be prescribed antibiotics for treatment can be used.

Key words : *Staphylococcus aureus*, Clumping factor, Fibronectin, Fibrinogen, Binding protein.



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Prevalence of genes encoding proteins fibronectin (*fnbA and fnbB*) and fibrinogen (*clfA and clfB*) Staphylococcus aureus isolates from patients in hospitals of Zabol city

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