

- Document Type** : Thesis
- Document Title** : *Studying the Inhibitory Effect of Garlic Extract on some Bacteria of Multi-resistance to Antibiotic*
دراسة الأثر التثبيطي لمستخلص الثوم على بعض البكتيريا ذات المقاومة المتعددة للمضادات الحيوية
- Document Language** : Arabic
- Abstract** : This study was performed in Alnoor specialized hospital, Holy Makkah during the period from 1st ,Jumad Althani,1427 [27 May 2006] till the end of Almoharam,1428[18 Feb 2007]. The aim of this study was to find the effect of different types of garlic bulbs [local or imported] on the hospital acquired antibiotic-resistant bacteria. Methods, this was done by using different types of local garlic bulb collected from Altaif , Almadina and Jeddah in addition to those imported from Egypt and studying their effect at variable dilutions in micrograms/ml on different types of bacteria namely; Pseudomonas aeruginosa, Staphylococcus aureus, Acinetobacter baumani, Klebsiella spp, Escherichia coli and Candida albicans using dispersion and dilution methods. The Staphylococcus aureus was the first cause of antibiotic-resistant hospital acquired bacterial infection [25.15% of isolates], while Candida albicans was found to be the least causative one [8.05% of isolates] The results of the dispersion method showed that all types of garlic have clear effect on all types of bacteria at the higher concentrations [1000,500 and 250 ug/ml], while the suppressive effect was less at the lower concentrations and was completely absent at the concentrations of (31.25) ug /ml. The staphylococcus aureus was the most affected bacteria by the watery extract of garlic. The effect of the different types of garlic in the dilution method on the bacteria was varied, as well the sensitivity of the bacteria. It was clearly apparent that the garlic concentrations and the duration of its use has a proportionately increasing effect on the decreasing number of the bacteria in the media. Also the results showed that the garlic has a bactericidal effect on the bacteria during incubation. We studied the effect of usage of combination between garlic extract and antibiotic (Vancomycin - imipenem which have high toxicity) on multi resistant strains . We found that the effect of this mixture gave better result in lowering the number of colonies and diminishing the mean survival rate of these strains than the use of any of them alone. conclusion; It was concluded that garlic extract is useful, when used with other antibiotics, as bactericidal agent in lowering dose and to minimize the side effects of antibiotics used, without denying the present importance of antibiotics.
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- Publishing Year** : 2007