Candida albicans is the most major yeast causing fungal infection, Because of the increasing factors that predispose the host to Candidiasis such as long treatment with broad spectrum antibiotics, adrenal corticosteroid therapy, diabetes, abdominal surgery and increasing numbers of patients with human immunodeficiency virus infection. Unfortunately, the increase in the number of C.albicans infections and the extensive use of new and established antifungal agents have resulted in the emergence of C.albicans that appear resistant to antifungal therapy. for these reason we need to define a quick method for the susceptibly of C. albicans to antifungal agents. In the present study we demonstrate the effect of antifungal agents: Amphotericin B, Nystatin, Fluycytosine, Fluconazole, Ketoconozole, Clotrmazole & Miconazole. to 133 strains of C.albicans isolated from patients at King Fahad hospital and King Abdul Aziz University hospital at Jeddah area by three tests methods: Disc Diffusion, Dilution and E-Test methods were performed in proposed standard of the National Committee for Clinical Laboratory Standard (NCCLS). with RPMI-1640 medium and the control strains C.albicans 90028, C.albicans 64550. The results show that the Amphotericin B was the most effective antifungal agents because there was no resistant strains by the three test methods except dilution method which had provided 3% of resistant strains of C.albicans isolated from king abdul aziz university hospital. Fluycytosine was the second effective antifungal agent with resistant range 8-13% for the C.albicans isolated form king fahad hospital and 6-11% resistant straine isolated form King Abdul Aziz University hospital all by the three test method. C.albicans has been reported less susceptible to Fluconazole with 65-73% resistant strains isolated form King Fahad hospital and 43-63% resistant strains isolated form King Abdul Aziz University hospital by the three-test method. The study of the adherance of C.albicans showed that phenyl sepharose was more effective in differentiation ofC.albicans to adhere with 64% more than octyl sepharose. In the other part we examined the effect of Amphotericin B, Fluycytosine & Fluconazole on the ability of C.albicans to adhere to Phenyl Sepharose. The results show that all antifungal agents decreased the adherance ofC.albicans to Phenyl Sepharose. and Amphotericin B was most effective antifungal with range 47% ,Fluconazole was the second effective antifungal with a range for all isolates (33 %). Fluycytosine seams to be the lowest effective antifungal on the adherance of C.albicans with the range for all isolated (18%). In the last part of these studies we investigated the effect of antifungal agents on C.albicans germ tube production, The results of these study show that all antifungal agents under investigation reduced the germ tube production for all C.albicans. But Arophotericin B was the most effective antifungal agent with aver reduction of (71%). Fluconazole
average reduction (58%) and Flucytosine (40%).

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