Abstract

Urinary tract infections are amongst the most common pathogenic infections with an increasing resistance to antimicrobials. Isolates from urine samples were identified and their susceptibility to antimicrobial agents were studied , also the combination effect of antibiotics and plant extract against bacterial isolates were studied. During the study , 130 urine samples from female and male patient with UTI were collected and only 116 were containing bacteria (50 male and 66 female) , their ages ranged between 4 to 87 years. *Escherichia coli* was the most common etiologic agent (43.9%) followed by *Staphylococcus aureus* (21.6%) , *Candida* (16.4%) , *Klebsiella* (14.7%) and *pseudomonas* (3.4%) .The relationship between percentage of infection and age of patients was studied. Amikacin , ciprofloxacin , gentamicin , levofloxacin , nalidixic acid and norfloxacin expressed the most effective antibiotic on microbial isolates but all these isolates were resistant to ampicillin-sulbactam , also ofloxacin showed intermediate effect on tested isolates and amoxicillin-clavulanic acid and cefotaxime showed little effect . Clove (alcoholic plant extract) was the most effective plant extract followed by thyme (cold water plant extract) . The combination between ciprofloxacin and rosemary and combination between gentamicin and peppermint were the most effective against the selected isolates of *E.coli* followed by combination between gentamicin and thyme (alcoholic plant extract) . While marjoram , oliban were resistant to the most selected isolates of *E.coli*.The effective antibacterial substance in clove was extracted and separatrd by TLC , purified and identified .The most active component as antibacterial compound which named as eugenol . Protein band analysis were carried out on tested *E.coli* strains under stress of clove extract and compared with non treated (control) which the results clearly indicate that , the clove extract inhibit protein bands in treated bacteria.