



Investigation of gene resistance on bacteria *Pseudomonas aeruginosa* and *Klebsiella pneumoniae* isolates from patient with burn and wound infection to some antibiotics

Ashraf Sami Hassan^{1*}, Mohammed tawfeekAbdull hussein¹,
FirasNabeeh Jafer¹.

¹AL-mustansariah University, College of Science , Department of Biology, Iraq

Abstract: Objectives: the aim of this study identify the causing agent of infection in burn patient and the sensitivity pattern of some antibiotic. **Methods:** A total of (40) clinical isolates from patient with burn and wound infection, (9) isolate was gram positive bacteria, (15) isolate identified as *Pseudomonas aeruginosa*, (11) isolate *Klebsiella pneumoniae* and (5) isolate sterile. **Results:** The results showed that percent of infection in female was %67 more than the male %33 and the range of age (20-29) year more than the other years to exposure of infection, and the results showed that *Pseudomonas aeruginosa* was sensitive to imipenem, the percent of resistant was %20, while ceftazidime the percent of resistant was %93. also *Klebsiella pneumoniae* was sensitive to imipenem, the percent of resistant %18, while cefepime the percent of resistant was %100. The MICs for *K. pneumoniae* isolates were (≤ 64 , 64, 64-256, 32-512, 64-512) $\mu\text{g/ml}$ for (Imipenem, Ciprofloxacin, Amikacin, Ceftazidime and Ceftriaxone) respectively, while the MICs for *Ps. aeruginosa* were (≤ 16 , 64, ≤ 512 , 4-512, 64-512) $\mu\text{g/ml}$ for (Imipenem, Ciprofloxacin, Amikacin, Ceftazidime and Ceftriaxone) respectively. **Conclusions:** All isolates gave negative results for detection of Metallo- β -lactamase by EDTA method. The genotypic detection by PCR showed that (3) isolates of *K. pneumoniae* and (5) isolates of *Ps. aeruginosa* had *bla*_{CTX-M} genotype only while all isolates were negative for *bla*_{SHV} and *bla*_{TEM} genotype. **Key Words:** Gene resistance, antibiotics sensitivity, burn and wound infection, genotypic detection by PCR, exposure of infection.