Introduction: Pseudomonas aeruginosa strains are often resistant to multiple antimicrobials specially which are metallo-beta-lactamases producers. Therefore, the present study was conducted with the objective to examine the incidence of MβL producing strains in multidrug resistant Pseudomonas aeruginosa from burn patients.

Methods
The isolates obtained were identified and tested for susceptibility to various antimicrobial agents and also screened for the presence of MβL by double disk synergic test. Imipenem minimal inhibitory concentration was determined by microplate broth dilution method on Mueller-Hinton-agar. To detect VIM, SIM and GIM polymerase chain reaction was done for Pseudomonas aeruginosa isolates.

Results
During our study, from 176 clinical specimens among burn patients, 100 P. aeruginosa were isolated and identified. The most resistant antibiotics to which the bacteria tested were Ampicillin (100%), ceftazidime (94%) and Ceftriaxone (89%). On the basis of CLSI-MBL phenotypic test, of the 100 P. aeruginosa isolates, 22 (22%) were positive for MBL production by the Double Disk Synergy Test. Of the 22 MBL positive P. aeruginosa isolates for imipenem, eight strains were to be resistant.
PCR detection of MBL was eight positive for blaVIM1. The other genes blaSIM1 and bla GIM1 were not detected.

Conclusion:
The study results demonstrate the serious therapeutic threat of the spread of metallo-beta-lactamases producers among Pseudomonas aeruginosa. Metallo-b-lactamases among imipenem-resistant P. aeruginosa were detected in 22% of imipenem-resistant P. aeruginosa isolates. Early detection and infection control practices are the best defense against this organism; therefore systematic surveillance to detect MBL producers is necessary.