Objective:
Pseudomonas aeruginosa is one of the most important opportunistic bacteria, causing a wide variety of infections especially in burn patients. In this study, we aimed to determine the etiology of burn, antibiotic susceptibility pattern and phenotypic detection of metallo- β-lactamase producing pseudomonas aeruginosa isolated in a referral burn unit in Kurdistan province.

Materials and Methods: Among April 2009 to April 2010, a total of 176 clinical specimens from the burn unit of Tohid Hospital, Sanandaj, were received to detect Pseudomonas aeruginosa. Antimicrobial susceptibility testing was done by Disk Diffusion method of Kirby Bauer method. Detection of ESBL producing Pseudomonas aeruginosa strains were performed by DDST method according to CLSI guidelines. MBL production was detected by growth inhibition in the presence of EDTA.

Results: During the study period 145 burn patients were admitted to burn unit at Tohid hospital. Their mean age and TBSA were 29 years and 37.7% respectively. Similarly, the mean length of hospital stay of the patients was 10 days. Kerosene was the commonest cause of burn (60%), followed by gas (30%). During our study, from 176 clinical specimens among burn patients, 104 P. aeruginosa were isolated and identified. The most resistant antibiotics to which the bacteria tested were Cefotaxime, Ceftriaxone and Ciprofloxacin. Of the 104 P. aeruginosa isolates, 28 (28%) were positive for ESBL production by the DDST. Furthermore, 32 isolates reveal MBL production.

Conclusion:
Of the burn injuries 87 (60%) patients were caused by Kerosene which is used mainly by people of low-income groups for lighting lamps. We strongly recommend that P. aeruginosa be seriously considered as the main source of infection in the referral burn centre at Tohid hospital - Sanandaj. P. aeruginosa producing β-lactamases are encountered frequently in this hospital, and their prevalence indicates a considerable potential for spread among patients.

Presentation: Poster