

PSEUDOMONAS AERUGINOSA, AN EMERGING PATHOGEN AMONG BURN PATIENTS IN KURDISTAN PROVINCE, IRAN

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Abstract. This study was conducted to determine the incidence of *Pseudomonas aeruginosa* infections among burn patients at Tohid Hospital, Iran. A total of 176 clinical specimens were obtained from 145 burn patients admitted to the burn unit of Tohid Hospital to detect the presence of *P. aeruginosa*. Antimicrobial susceptibility testing was conducted to detect extended spectrum beta-lactamase (ESBL) producing *P. aeruginosa* using Clinical and Laboratory Standards Institute guidelines with the double disc synergy test (DDST). A polymerase chain reaction was used to detect PER-1 and OXA-10 among the isolates. The mean age, total body surface area and length of hospital stay among patients were 29 years, 37.7%, and 10 days, respectively. Kerosene was the commonest cause of burn (60%), followed by gas (30%). During the study, *P. aeruginosa* was detected in 100 isolates. The antibiotics they were most commonly resistant to were cefotaxime, ceftriaxone and ciprofloxacin. Of the 100 *P. aeruginosa* isolates, 28% were positive for ESBL production with the DDST, 48% and 52% were PER-1 and OXA-10 producers, respectively. The high frequency of PER-1 and OXA-10 producers at this hospital is of concern considering their potential spread among burn patients.

Keywords: *P. aeruginosa*, burn patients, ESBL

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