

## عنوان مقاله:

Characterization and frequency of antibiotic resistance related to membrane porin and efflux pump genes among *Acinetobacter baumannii* strains obtained from burn patients in Tehran, Iran

## محل انتشار:

اولین کنگره سالیانه دانشجویی آوان (سال: 1399)

تعداد صفحات اصل مقاله: 1

## نویسندگان:

Sousan Akrami - *Student Research Committee, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran*

Majid Noori - *Golestan Hospital, Army University of Medical Sciences, Tehran, Iran , Department of Microbiology, school of Medicine*

Behzad Mohsenzadeh - *Golestan Hospital, Army University of Medical Sciences, Tehran, Iran , Department of Microbiology, school of Medicine*

Aghil Bahramian - *Shahid Beheshti University of Medical sciences, Tehran, Iran , Department of Microbiology, Faculty of Medicine, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran*

Fatemeh Shahi - *Student Research Committee, Ahvaz Jundishapur University of Medical Sciences, Ahvaz, Iran*

Habibollah Mirzaei - *Hepatitis Research Center, Lorestan University of Medical Sciences, Khorramabad, IR, Iran*

## خلاصه مقاله:

**Background:** To explore the characterization and frequency of antibiotic resistance related to membrane porin and efflux pump genes among *Acinetobacter baumannii* (*A. baumannii*) strains obtained from burn patients in Tehran, Iran. **Methods:** In this cross-sectional descriptive study, 100 strains of *A. baumannii* isolated from burn patients visiting teaching hospitals of Tehran were collected from January 2016 to November 2017. After *A. baumannii* strains were confirmed, antimicrobial susceptibility testing was done via Kirby-Bauer disc diffusion method according to the Clinical and Laboratory Standards Institute guidelines. PCR amplification was performed for detection of -lactamase *adeR*, *OprD*, *adeS* genes among *A. baumannii* strains. **Results:** All isolates (100%) were resistant to ceftazidime, cefotaxime, cefepime, ciprofloxacin, and piperacillin, and most isolates indicated high resistance (95%-97%) to meropenem, imipenem, gentamicin, ceftriaxone, trimethoprim-sulfamethoxazole, piperacillin/tazobactam, amikacin, and tetracycline. The most effective antibiotic against *A. baumannii* isolates was colistin (97% sensitivity), followed by tigecycline. The frequency of *OprD*, *adeS*, and *adeR* genes were 98%, 91%, and 77%, respectively. **Conclusions:** This study shows for the majority of *A. baumannii* isolates are highly resistant to the antibiotics most commonly used in burn patients. Also, high distribution of *OprD* and *adeRS* genes may be responsible for the observed resistances among *A. baumannii* isolates that demonstrate the possible role of both efflux pumps in simultaneous of carbapenemase production during antibiotic resistance

## کلمات کلیدی:

antibiotic, *Acinetobacter*, obtained

