

Study of Antibiotic Resistance Pattern in *Acinetobacter baumannii* Strains Isolated From Clinical Specimens From Two Hospitals in Tehran

Kamal Azizi Barjini¹; Jafar Amani²; Mehrdad Moosazadeh Moghaddam²; Asadollah Asadi¹; Maryam Moradi Moein*³

1-Department of Biology, Faculty of Science, University of Mohaghegh Ardabili, Ardabil, Iran

2-Applied Microbiology Research Center, Baqiyatallah University of Medical Sciences, Tehran, Iran

3-Plant Biology Department, Faculty of Biological Sciences, Tarbiat Modares University, Tehran, Iran

azizi64@gmail.com

Background & Objectives: *Acinetobacter baumannii* is a species of pathogenic bacteria, an aerobic gram-negative bacterium, that is resistant to most antibiotics. Most *A. baumannii* isolates are multi-resistant and they are a common problem in many hospitals. Nosocomial *A. baumannii* bacteria may cause severe clinical disease that is associated with an elevated mortality rate. The aim of this study was to identify antibiotic pattern of multi-drug resistant *A. baumannii* strains isolated from clinical specimens from two hospitals.

Methods: During this study, 96 cultures of *A. baumannii* which supposed they are Multi-drug resistant strains were gathered from two hospitals in Tehran (Baghiatallah and Khatam Al Anbia). Detection of those bacteria was confirmed by PCR examination with specific primers for 12 isolated randomly bacteria. And finally antimicrobial resistance testing was examined by using Kirby Bauer disc diffusion technique. Used antibiotics were ampicillin, ciproflaxin, piperacillin, kanamycin, gentamicin, ceftazidime, amikacin, cefotaxime, imipenem.

Results: About 85% of those isolates were resistant to examined antibiotics, 5% of them were intermediate and 10% were sensitive. These isolates were more sensitive to Amikacin antibiotic about 43% sensitivity. The most resistances were related to Ceftazidime about 96.87%.

Conclusion: Our findings indicated that, rate of multidrug-resistant *A. baumannii* are growing because *A. baumannii* isolates have resistance to those antibiotics. Therefore this is important to consider antibiotic treatment of patients, and it would be better to change consumption patterns of antibiotics.

Keywords: *Acinetobacter baumannii*; Multidrug Resistant; Antibiotic Pattern