

Prevalence of acinetobacter clinical isolates producing extended spectrum beta-lactamase (ESBL) and metallo-beta-lactamase (MBL) in Kermanshah academic hospitals

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Background and Aims: Acinetobacter spp produce drug resistant infections. Different enzymes such as MBL & ESBL involved in these clinically significant infections. As the first of its kind in western region of Iran, this study designed to determine the frequency of MBL & ESBL in Acinetobacter isolates.

Methods: A total of 84 acinetobacter clinical isolate were collected in Taleghani Emam Reza and Emam Khomeini teaching hospitals during the year 2010. ESBL and MBL producing isolates phenotypically determined by Double Disk Synergy Test (DDST) and E-test method, respectively. Also Disk diffusion test was used for identifying susceptibility to carbapenem.

Results: All Acinetobacter isolates were baumannii species. 38 (45.2%) and 69 (82%) of isolates were producing ESBL and MBL enzymes, respectively. No significant difference were found between Carbapenemase positive and carbapenemase negative isolates in respect to ESBL and also MBL production ($p>0.1$).

Conclusions: Compared to other similar studies, the present findings indicate a relatively higher level of ESBL and MBL producing Acinetobacter strains along with high level of antibiotics resistance and necessity for drug resistance patterns surveillance in hospitals.

Keywords: Acinetobacter; Antibiotic resistance; MBL; ESBL