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Prevalence rate of Nosocomial *Acinetobacter baumannii* in clinical samples from three Palestinian hospitals

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Acinetobacter baumannii can cause a wide range of infections, including meningitis, bacteremia, pneumonia, urinary tract infection, etc. This organism is becoming resistant to a large group of antibiotics, especially β-lactam antibiotics. The reason for multi-drug resistance may be the production of extended- spectrum β-lactamses (ESBLs), carbapenemases/metallo β-lactamases or AmpC β-lactamases. The aim of the present study was to determine the prevalence of multi-drug resistant *Acinetobacter baumannii*isolated from the patients in Intensive Care Units (ICUs) and cardiac Care Unites (CCUs) of three Palestinian hospitals (Palestinian medical complex, Rafedia Surgical hospital, and Beit Jala Governmental hospital) west bank Palestine. A total of 115 *A. baumannii* isolates were collected from three hospitals during the period from December 2015 to June 2016. The antibiotic susceptibility testing was performed by standard disc diffusion method (Kirby Bauer) as recommended by CLSI 2016 (M02-A12,M07-A10, and M11-A8), Combination disc method, Modified Hodge test, EDTA disc synergy test and AmpC disc test were performed for detection of ESBLs, carbapenemases, metallo β-lactamases, and AmpC β-lactamases, respectively. Multiplex PCR applied on all suspected cases to be carbapenemases/metallo β-lactamases or AmpC β-lactamases.The prevalence of MDRs was reported 100% among *A. baumannii*. The antibiotic susceptibility profile showed that Colistin, Polymyxin, Minocycline and Tigecycline were the most effective drugs against *A. baumannii*. Almost all of *A. baumannii* isolates resistant to Imipenem, Meropenem, and Ertapenem were carbapenemases and metallo β-lactamases producers (9.8% MBL all isolates carried NDM gen), AmpC prevalence was observed in 3.76% only DHA gen was detected, while none of the isolates was ESBL producer (CTX-M, SHV, and TEM). Antibiogram and minimal inhibitory concentrations (MICs) indicated Colistin, Polymyxin B, and tetracycline is relatively effective against *A.baumannii*.Increased frequency of multi-drug resistance supports the need for continuous surveillance to determine prevalence and evolution of these enzymes in Palestinian hospitals.

Biography

Ibaideya Mamoun AT, 37 year old, has completed his MLS at Annajah national university on 2002, and MPH at Annajah national university on 2005. Fellow ship in Micrbiology at Juntendu university, Tokyo, Japan 2008. Microbiology supervisor in the Palestinian Minstry of health for 5 years, shared in about 5 research project in nasocomial infections in Palestine.

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