

عنوان مقاله:

Detection of Efflux Pump Genes (adeA, adeB, adeC and abeM) in *Acinetobacter baumannii* Isolated from Hospitalized Patients, North-west of Iran

محل انتشار:

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خلاصه مقاله:

Background: The importance of this research was to determine the prevalence of efflux pump genes among *Acinetobacter baumannii* isolates from hospitalized patients in Imam Reza hospital in Tabriz, Iran. **Materials and Methods:** This descriptive study was conducted in the Imam Reza hospital, Tabriz, IR Iran during June 2013 to March 2014. Twenty-six strains were isolated from female patients (42.6%) and thirty-five from male patients (57.4%). Clinical specimens were cultured for isolation of the microbial agents of *A. baumannii*. The isolated bacteria were identified using biochemical tests. Disk diffusion susceptibility test was used to determine the antimicrobial susceptibility, and E-test methods were also used. The prevalence of efflux pump genes was detected by PCR and sequencing methods. **Results:** The resistance of *A. baumannii* isolates against tested antibiotics was analyzed as follows: 51 (84%) to trimethoprim-sulfamethoxazole, 59 (98%) to ceftazidime, 60 (99%) to ciprofloxacin, 29 (48%) to amikacin, 46 (77%) to gentamicin, 30 (50%) to tobramycin, 60 (99%) to imipenem, 60 (99%) to meropenem, 60 (99%) to ceftriaxone, 60 (99%) to cefepime, 60 (99%) to ofloxacin, 6 (11%) to colistin. By using E-test, 45 (73.3%) to imipenem, 57 (93.3%) to ciprofloxacin, 23 (38%) to amikacin were also analyzed. The prevalence of adeA, adeB, adeC, and abeM genes was 54 (88.5%), 61 (100%), 57 (93.9%), and 60 (98.3%), respectively. **Conclusion:** The result of this study showed high incidence of AdeABC efflux pump in MDR *A. baumannii* isolates and the growing number of nosocomial infections associated with XDR *A. baumannii* complex, leading to difficulties in antibiotic therapy

کلمات کلیدی:

A. baumannii, Efflux pumps, PCR

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