

عنوان مقاله:

Prevalence of bla VIM, bla IMP, and bla KPC Genes among Carbapenem-Resistant *Klebsiella pneumoniae* (CRKP)
Isolated from Kurdistan and Isfahan Hospitals, Iran

محل انتشار:

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خلاصه مقاله:

Background: Carbapenem resistance among *Klebsiella pneumoniae* is an emerging problem worldwide. One of the main mechanisms of resistance to carbapenems is the potential of *Klebsiella pneumoniae* to produce carbapenemase enzyme. This study was conducted to determine the frequency of blaVIM, blaIMP, and blaKPC among carbapenem-resistant *K. pneumoniae* (CRKP) isolated from Kurdistan and Isfahan hospitals. Materials and methods: This study was carried out in Iran using 183 samples from the Besat and Alzahra hospitals in 2017. Antibiotic susceptibility tests were performed by Kirby-Bauer disc diffusion. The modified Hodge test (MHT) was used to investigate the presence of carbapenemase. The β -lactamases genes were detected by PCR. Results: The highest and lowest rates of resistance were observed against cefotaxime (98.2%) and gentamicin (43.6%), respectively. Among the 183 isolates, 134 (73.2%) were positive by the MHT. The prevalence rates of blaVIM, blaIMP, and blaKPC were 4 (2.18%), 1 (0.5%), and 0%, respectively. Conclusion: The prevalence of CRKP strains is a major concern and infection control processes are needed. These gene showed a low prevalence in our country, likely because other mechanisms of resistance to carbapenems are involved.

کلمات کلیدی:

blaVIM, blaIMP, blaKPC, Carbapenemase, *Klebsiella pneumoniae*

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