

## عنوان مقاله:

Molecular study of CTX-M-1, CTX-M2, CTX-M9, mcr-1, NDM-1 genes among Klebsiella pneumonia isolates from hospitalized patients in Taleghani hospital; Tehran, Iran

## محل انتشار:

بیستمین کنگره بین المللی میکروب شناسی ایران (سال: 1398)

تعداد صفحات اصل مقاله: 1

## نویسندگان:

Hadis Ghasemi - Dept. of Microbiology, Faculty of Basic Sciences, Tehran Science and Research Branch, Islamic Azad University, Tehran, Iran

Mojdeh Hakemi-Vala - Dept. of Microbiology, Medical school, Shahid Beheshti University of Medical Sciences, Tehran, Iran

Ali hashemi - Dept. of Microbiology, Medical school, Shahid Beheshti University of Medical Sciences, Tehran, Iran

## خلاصه مقاله:

**Introduction and Objectives:** Klebsiella pneumonia, is a major cause of hospital infections and the prevalence of drug resistance among them is increasing globally. The aim of this study was molecular evaluation of CTX-M-1, CTX-M-2, CTX-M-9, mcr-1, NDM-1 genes among Klebsiella pneumonia isolates from hospitalized patients in Taleghani hospital. **Materials and methods:** Klebsiella pneumonia isolates from patients who referred to Taleghani hospital were collected during 2016-2017. All were confirmed by standard bacteriologic tests. Antimicrobial susceptibility test (AST) was done by Kirby-Bauer method based on CLSI protocol. After DNA extraction, frequency of selected resistance genes was determined by PCR method and further sequencing. Statistical analysis was done by SPSS software. **Results:** among 70 isolates of Klebsiella pneumonia, the highest resistance were against: Ampicillin 74%, Cefpodoxime 65%, Ceftriaxone 57%, and 55.6% to Aztreonam. The most sensitivity was to Fosfomycin/Trometamol 86.5%, Amikacin, Imipenem, Doripenem, Meropenem, Ertapenem 71.6%. PCR results showed that 71% of the isolates had CTX-M-1 and 31% CTX-M-2, 23% CTX-M-9, 1.4% NDM-1. All were negative for mcr-1 gene. **Conclusion:** with the release of new information on drug resistance and the detection of CTX-M 1,2, 9, mcr-1 and NDM-1 genes in Klebsiella pneumoniae isolates, doing molecular tests are recommended which may help physicians to prescribe the best and most appropriate antibiotic.

## کلمات کلیدی:

Klebsiella pneumoniae, mcr-1, antibiotic resistance, CTX-M gene, NDM-1

## لینک ثابت مقاله در پایگاه سیویلیکا:

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