

The prevalence of ESBLs producing *Klebsiella pneumoniae* isolates in some major hospitals, Iran.

Abstract

Aims of this study were to investigate on antibiotic resistance and molecular epidemiology of *K.pneumoniae* producing ESBLs isolates of respiratory tract infections in some major hospitals in Iran. *K.pneumoniae* were obtained of patients with RTI. *K. pneumoniae* producing ESBLs detected by screening, confirming and PCR methods. During the 12-month period, a total of one hundred and thirteen of *K.pneumoniae* were found from RTI in three cities in different region of Iran which Sixty seven strains (59.2%) were ESBLs producer. In Ilam hospitals, seventeen strains (43.6%), in Milad hospital, thirty-seven strains (74%) and in Emam Reza hospital, thirteen strains (54.2%) were ESBLs producer. The findings showed that among sixty-seven *K.pneumoniae* producing ESBLs, Sixty-three strains (94%) were positive for blaSHV, eleven strains (16.4%) contained blaTEM and sixteen strains (23.9%) harbored blaCTX-M. Imipenem was found as an effectiveness antibiotic. In the current study, Majority of the ESBLs production had occurred in Milad hospital in Tehran (74%). In conclusion, spreading ESBL-producing strains is a concern, as it causes limitations to the antimicrobial agents for optimal treatment of patients.

Keyword: ESBLs; *Klebsiella pneumoniae*; BlaSHV; BlaTEM; BlaCTX-M.