



University of Zabol
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(in the field of Genetic)

Title

Prevalence of three NDM-1, oqxA and oqxB genes in Klebsilla pneumoniae isolates isolated from urine samples

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Abstract: The most important factors causing antibiotic resistance in *Klebsilla pneumoniae* bacteria are beta-lactamases and secretory pumps, considering the high prevalence of genes causing resistance and the spread of hospital infections, especially urinary tract infections caused by them, in this Research *Klebsilla pneumoniae* isolates isolated from urine samples were checked for the abundance of NDM-1, oqxA and oqxB genes using PCR technique. Boiling method was used to extract DNA. Out of the 95 investigated isolates, the prevalence of oqxA, oqxB and NDM-1 genes was evaluated in 75 isolates (78.94%), 75 isolates (78.94%) and 84 isolates (88.42%), respectively. The spread of antibiotic resistance genes in this study is a cause for concern, therefore, to control infection and prevent the spread of drug-resistant bacteria, there is a need to manage antibiotic administration and use molecular methods such as PCR to identify resistant isolates.

Key words: *Klebsilla pneumoniae*, antibiotic resistance, urinary tract infection, NDM-1, oqxA, oqxB