عنوان مقاله:

Prevalence of Extended-spectrum Beta-lactamases (ESBL) Types blaTEM and blaSHV in Klebsiella pneumoniae Strains Isolated from Clinical Samples by PCR in Miandoab, West Azerbaijan

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خلاصه مقاله:

Background and Objective: Beta-lactamases are the most important factors in the resistance to beta-lactam antibiotics among gram-negative bacteria, especially Klebsiella pneumoniae. Nowadays, the prevalence of infections caused by extended-spectrum β-lactamases (ESBLs)-producing K. pneumoniae is increasing, as one of the emerging health problems throughout the world. This study aimed to investigate the prevalence of blaTEM and blaSHV genes in K. pneumoniae isolated from the clinical specimens in Miandoab in West Azerbaijan province. Materials and Methods: In this study, ۱۲۰ K. pneumoniae strains which were isolated from the clinical specimens in Miandoab hospitals were used. Then, an antibiotic susceptibility test was performed to determine ESBL-producing K. pneumoniae isolates using the combined disk method. The presence of blaTEM and blaSHV genes was detected by the polymerase chain reaction (PCR) technique. Results: In the combined disk method, of ۱۲۰ strains of K. pneumoniae, ۷۱ (۵۹.۲%) were positive for ESBL. The blaTEM and blaSHV ESBLs were detected in ۳۵ (۴۹.۳%) and ۳۱ (۴۳.۷%) strains respectively. Eventually, the co-existence of blaTEM and blaSHV was detected in ۵ (۷%) isolates. Conclusion: blaTEM was the most common gene with a frequency of ۴۹.۳% in K. pneumonia isolates.

کلمات کلیدی:

blaTEM, blaSHV, K. pneumoniae, Miandoab, blaTEM, blaSHV, کلبسیلا پنومونیه, میاندوآب