عنوان مقاله:

Prevalence of the per, tem, veb, shv genes in Acinetobacter baumannii Isolated from Educational Hospital of Zahedan, Iran

محل انتشار:

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خلاصه مقاله:

Background and Aim: Acinetobacter baumannii is one of the most important pathogens found in ICUs as it is responsible for nosocomial infection with a high mortality rate and a rising level of resistance to most antibiotics. One of the main mechanisms of resistance is the production of extended-spectrum beta-lactamase (ESBL) genes such as veb, per, tem, and shv. The current study aimed to determine the antibiotic resistance pattern and the frequency of per,

tem, veb, and shv genes in A. baumannii strains isolated from Zahedan, Iran. Materials and Methods: The current study was conducted on ۱۵۰ strains of A. baumannii isolated from different clinical samples from January to September ۲۰۱۸. The antibiotic resistance pattern was determined by the disk diffusion method for ۱۸ antibiotics and the minimum inhibitory concentration for colistin. Later, the bacterial genome was extracted, and PCR detected ESBL genes. Results: Out of the ۱۵۰ studied isolates, ۱۴۱ were A. baumannii and only nine isolates were A. nosocomialis. A. baumannii strains were strongly resistant to many selected antibiotics such as CAZ (۹۹.۳%), CTX (۹۷.۹), PTZ (۹۷.۲%), SXT (۹۷.۲%), IMI (۹۷.۲%), and LEV (۹۶.۵%); while this value was low for a few antibiotics including MN (۶۹.۵%), DXT (۵۲.۵%), SAM (۲۱.۳), and TN (۱۶.۷). The eb, per, tem, and shv genes were detected in ۲۰ (۱۳.۳%), ۱۵ (۱۰%), ۲۳ (۱۵.۴%), and ۱۱ (۷.۳%) isolates, respectively. Conclusion: The isolates were highly resistant to ceftazidime, ceftriaxone, piperacillin-tazobactam, cotrimoxazole, imipenem, and levofloxacin; in addition, the frequency of per, veb, tem, and .genes was lower in the current study than those reported in other regions

کلمات کلیدی:

,Acinetobacter baumannii, Extended-spectrum beta-lactamase, Antibiotic resistance
اسینتوباکتر بومانی, بتالاکتاماز با طیف گسترده, مقاومت آنتی بیوتیکی

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