

عنوان مقاله:

ANTIBIOTIC RESISTANCE PATTERN AND FREQUENCY OF ESBL PRODUCING ENTEROBACTERIACEAE
ISOLATED FROM LETTUCE AND SPINACH IN GORGAN

محل انتشار:

نوزدهمین کنگره بین المللی میکروب شناسی ایران (سال: 1397)

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خلاصه مقاله:

Background and Aim:In recent years, there have been many epidemic outbreaks caused by consumption of contaminated vegetables. In most cases, Enterobacteriaceae were responsible for these epidemics. The purpose of this study was to investigate antibiotic resistance pattern and frequency of strains producing broad-spectrum beta-lactamase (ESBL) isolated from lettuce and spinach produced in Gorgan, Iran.
Methods:After culturing the isolates on MacConkey medium, colonies with specific morphological characteristics were selected. After preparation of pure culture, strains resistant to cefotaxime were identified and strains belonging to the Enterobacteriaceae family were isolated. The isolates were then studied for broad-spectrum beta-lactamases (ESBL) and their antibiotic resistance patterns were determined.
Results:The results of this study showed that ESBL Enterobacteriaceae is present in vegetables such as lettuce and spinach. It was also found that all isolated ESBL Enterobacteriaceae from spinach samples were resistant to Cotrimoxazole, Nalidixic Acid, Tetracycline, Chloramphenicol, and Amoxicillin, and sensitive to Imipenem. Isolated ESBL Enterobacteriaceae from lettuce samples was sensitive to Amikacin and Imipenem. Multiple antibiotic resistance was observed in all isolates
Conclusion:It can be concluded that use of animal fertilizers .increases the risk of antibiotic-resistant bacteria in vegetables and ultimately in human and animals

کلمات کلیدی:

Enterobacteriaceae, broad-spectrum beta-lactamases, vegetables, antibiotic resistance

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