عنوان مقاله:

Antibiotic resistance and prevalence of Extended Spectrum ß- Lactamase (ESBL) in non-infectious children under three years old in Ahvaz city

محل انتشار:

بیستمین کنگره بین المللی میکروب شناسی ایران (سال: 1398)

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خلاصه مقاله:

Introduction and Objectives: Escherichia coli is one of the first bacterial species that is colonized in the gastrointestinal tract of newborns and could be an important source of antibiotic resistance genes. Extended-Spectrum ß-lactamase (ESBL)- producing bacteria are worldwide significant threat. The aim of the present study was investigation of the antimicrobial resistance and prevalence of Extended Spectrum ß- Lactamase (ESBL) among E. coli strains isolated from feces of non- infectious children under three years old in Ahvaz city. Materials and Methods: Two hundred one stool samples were collected from non-infectious children and cultured to isolate E. coli strains. Antimicrobial resistance pattern of isolates was detected using Kirby-Bauer disk diffusion method. The investigated antibiotics were included nalidixic acid, ampicillin, tetracycline, cefotaxime, ceftazidime, trimethoprim-sulfamethoxazole, ciprofloxacin, and gentamycin. ESBL-producing isolates were detected by combined disk (CD) test. The CD method was performed using cefotaxime, cefotaxime-clavulanic acid and ceftazidime, ceftazidime- clavulanic acid. Results: The highest resistance was observed against ampicillin (64.7%). The percent of resistance related to nalidixic acid, tetracycline, cefotaxime, ceftazidime, trimethoprim-sulfametoxazole, ciprofloxacin, and gentamycin was as follow: 43.8, 42.3, 49.8, 40.8, 50.2, 25.4 and 6.5 respectively. Of these isolates 31 (15.42%) strains were ESBL carries. Conclusion: Our study showed high resistance to antimicrobial agents among commensal isolates; therefore, the control of antibiotics use is necessary. The prevalence of ß- lactamases leads to a high resistance to antibiotics, especially ß- lactams and ultimately leads to an increase in infectious diseases.

کلمات کلیدی:

Commensal Escherichia coli, antibiotic resistance, Disc diffusion method, ESBL

لینک ثابت مقاله در پایگاه سیویلیکا: