Abstract

Extended-spectrum beta-lactamase of CTX-M،TEM and SHV typs is considered as an important mechanism resistant to cephalosporin in gram-negative patogene and is widly growing. Enterobacter species are able to produce extended-spectrum beta-lactamase (ESBLs).The aim of this study was to detect the prevalence of CTX-M،TEM and SHV genes in ESBLs produsing entrobacters isolated from patients attending in zabol hospitals using PCR method. In this analytical-descriptive study، antibacterial susceptibility patterns of 165 enterobacter to Cefotaxim، Ceftazidim، Ceftriaxon and Azteronam tested using disk diffusion method. In addition، cofirmatory tests for detecting ESBLs phenotypes were performed using Ceftazidim-clavulanic acid combination disk. The presence of CTX-M، TEM and SHV genes were assessed using PCR. Confirmatory phenotypic test showed 92٪ of the strains were ESBL positive. The prevalence of CTX-M، TEM and SHV genes in isolated Enterobacters was 63٪ ، 72٪ and 76٪، respectively. High frequency of CTX-M،TEM and SHV genes in ESBL produsing isolates indicates that this enzyms plays an important role in resistance to betalactam containing antibiotics.

Keywords: CTX-M gens، TEM gens، SHV gens، Enterobacter، Extended-spectrum beta-lactamases، Polymerase Chain Reaction

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