عنوان مقاله:

Prevalence of Aminoglycoside Modifying Enzyme Genes, aac(3)IIa and aac(6′)Ib in ESBL-.ProducingKlebsiellapneumoniae, Isolated in Bushehr Province, Iran

محل انتشار:

سیزدهمین کنگره بین المللی میکروب شناسی بالینی استاد البرزی (سال: 1398)

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خلاصه مقاله:

Background and Objectives: The production of extended-spectrum beta-lactamase (ESBL) by Enterobacteriaceae is a global public health problem.Treatment of these strains is hardly effective since the plasmid coding ESBL may also carry other resistance genes including aminoglycosides.The aim of the present studywas to evaluate theprevalence of aminoglycoside-modifying enzymegenes, aac(3)IIa as well as aac(6′)Ib in ESBL-producing Klebsiellapneumoniae isolated in Bushehr province, Iran. Materials and Methods: A total of fifty-sixconfirmed ESBL-producing K. pneumoniaeisolates were collected and the co-resistance to aminoglycosides as well as,the presence of aminoglycoside-modifying enzymes genes,aac(3)IIa and aac(6′)Ib were investigated in ESBL-producing K. pneumoniaeby PCR. Results:Among fifty-sixESBL-producing K. pneumoniae, 37 (66%) isolates were resistant to at least one aminoglycoside agents. In addition,among isolates resistant to amikacin, 77.7% represented MIC≥ 256. Moreover, a high level resistance to gentamicin (MIC≥ 1024) was seen in 26.3% of resistant isolates. It is notable that 32 (57.1%) ESBL-producing K. pneumoniae harbored aminoglycoside-modifying enzyme genes. Theaac(6')-Ibandaac(3)-IIagenes were found in30 (53.5%) and 24 (42.8%) ESBL-producingisolates, respectively. Conclusion: This study provides evidence of highprevalence of aminoglycoside-modifying enzymes genesin ESBL-.producingKlebsiellapneumoniaeisolatesand emphasizes the need for their epidemiological monitoring

کلمات کلیدی:

لینک ثابت مقاله در پایگاه سیویلیکا: