

عنوان مقاله:

Diagnosis and Identification of Macrolic Resistance (Clarithromycin) Mycoplasma Pneumonia in Patients with Respiratory Tract Infections in Tehran, Iran

محل انتشار:

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

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خلاصه مقاله:

Introduction and Objectives: Mycoplasma pneumoniae is one of the major causes of community acquired pneumonia (CAP). Macrolics are used as the primary treatment for pneumonia caused by Mycoplasma pneumoniae that in recent years, the widespread use of macrolics has led to the rapid and global emergence of macrolic resistance to Mycoplasma Pneumonia (MRMP) as a result of the nucleotide displacement at specific positions in the domain V of the 23SrRNA gene. **Materials and Methods:** In this study, 100 samples of throat swab were collected from patients with respiratory tract infections. After the extraction of the DNA of the samples using Roch kit, PCR technique was performed with specific primers for P1 gene for Mycoplasma pneumoniae species and 23SrRNA gene and then was performed for Mycoplasma pneumoniae MIC samples with microdilution broth with Claritromicine antibiotic and finally, the PRC product of 23SrRNA gene was sequenced to detect mutations associated with macrolic resistance in the V domain of the 23SrRNA gene. **Results:** In this study, using specific primers, 6 cases (6%) were reported positive for Mycoplasma pneumoniae species. Also, after analyzing the PCR sequence of the 23SrRNA gene, one it was specified that one of the samples indicated a mutation in the A2431G and G2491A positions that by measuring MIC amount, all of the positive samples for Mycoplasma pneumoniae species and 23SrRNA genes were susceptible to the Clarithromycin antibiotic and no macrolic resistance was reported for clarithromycin antibiotics. **Conclusion:** In this study, after analyzing the PCR product of 23SrRNA gene, no macrolic resistance in Mycoplasma pneumonia was reported against clarithromycin antibiotic. Therefore, in order to prevent the emergence of macrolic resistance in Mycoplasma pneumonia MRMP in Iran, the use of macrolic antibiotics should be limited.

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