

عنوان مقاله:

Molecular Typing of Streptococcus agalactiae- cMLSB Phenotype Isolates by Enterobacterial Repetitive Intergenic Consensus-PCR (ERIC-PCR) in Isfahan, Iran

محل انتشار:

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نویسندگان:

Saba Jalalifar - Department of Microbiology, School of Medicine, Iran University of Medical Sciences, Tehran, Iran

Tahereh Motallebirad - Department of Microbiology, School of Medicine, Isfahan University of Medical Sciences, Isfahan, Iran

Shirin Dashtbin - Department of Microbiology, School of Medicine, Iran University of Medical Sciences, Tehran, Iran

Rasoul Mirzaei - Department of Microbiology, School of Medicine, Hamadan University of Medical Sciences, Hamadan, Iran

Mehdi Khorshidi - Department of Microbiology, School of Medicine, Isfahan University of Medical Sciences, Isfahan, Iran

Bahram Nasr Esfahani - Department of Microbiology, School of Medicine, Isfahan University of Medical Sciences, Isfahan, Iran

خلاصه مقاله:

Backgrounds: Group B Streptococcus (GBS) is an important opportunistic bacterial pathogen that could cause serious infections, especially in neonates, adults, and the elderly. In GBS isolates, a macrolide resistance phenotype that confers constitutive resistance to macrolide-lincosamide-streptogramin B antibiotics (cMLSB phenotype) has become a global concern. On the other hand, little is known about the genetic relatedness and diversity of GBS isolates isolated from various patients in Iran. Hence, this study aimed to determine the genetic relatedness and molecular typing of cMLSB-GBS isolates using enterobacterial repetitive intergenic consensus-PCR (ERIC-PCR) technique. **Materials & Methods:** A total of 100 GBS isolates were collected from patients with urinary tract infections (UTI). Among them, 52 erythromycin-resistant GBS isolates were selected, and double-disc diffusion (D-zone) technique was applied to determine the MLSB phenotype among the isolates based on CLSI criteria. Then the genetic relatedness of MLSB-GBS isolates was assessed using ERIC-PCR fingerprinting method. **Findings:** Among 52 erythromycin-resistant GBS isolates, 38 isolates were identified with cMLSB phenotype, nine isolates with M phenotype, and five isolates with iMLSB phenotype. The analysis of ERIC-PCR patterns revealed eight different ERIC types that were divided into seven clusters (A-G) and one single type. Also, four isolates were non-typeable. ERIC type A/ serotype Ib was the most prevalent clone among the isolates. **Conclusion:** The current study findings showed a high level of diversity and multiclonal spread of the cMLSB phenotype in Isfahan. ERIC type A/ serotype Ib is the predominant clone circulating among erythromycin-resistant GBS strains

کلمات کلیدی:

Molecular typing, Group B Streptococcus, Antibiotic resistance, Erythromycin-resistant GBS, ERIC-PCR, Iran

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