

عنوان مقاله:

Staphylococcal Cassette Chromosome mec (SCCmec) Typing of Methicillin-Resistant Staphylococcus aureus Strains Isolated from Community- and Hospital-Acquired Infections

محل انتشار:

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خلاصه مقاله:

Background: Methicillin-resistant Staphylococcus aureus (MRSA) is responsible for the growing number of hospital- and community-acquired infections. Objectives: In this study, we aimed to determine the prevalence of MRSA, its antimicrobial resistance profile, and molecular typing of strains isolated from different infections in Iran. Methods: A total of ۱۰۰ S. aureus strains were isolated from various clinical specimens from Al-Zahra Hospital of Isfahan, Iran during January-June, ۲۰۱۵. Antimicrobial susceptibility test was performed, using the disk diffusion method. For identifying the MRSA phenotype, oxacillin agar screening was performed. Detection of mecA gene among the isolates was performed via polymerase chain reaction (PCR) using specific primers, followed by multiplex PCR for SCCmec typing of MRSA isolates. Results: In the present study, ۵۴ (۵۴%) isolates were identified as MRSA. Overall, ۱۲ (۲۲.۲۳%) and ۴۲ (۷۷.۷%) isolates were obtained from community- and hospital-acquired infections, respectively. SCCmec typing among MRSA isolates showed that ۱۹ (۳۵.۱۸%), ۱۳ (۲۴.۰۷%), ۶ (۱۱.۱۱%), ۵ (۹.۲۵%), and ۳ (۵.۵۵%) isolates contained SCCmec type III, type I, type IV, type II, and type V, respectively; however, ۸ (۱۴.۸۱%) isolates were nontypable. Conclusions: In the current study, SCCmec type III isolates were the most common among ۵۴ MRSA isolates in a teaching hospital in the center of Iran. This finding might be attributed to antibiotic pressure, facilitating clonal selection.

کلمات کلیدی:

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