عنوان مقاله:

Prevalence of virulence factors in methicillin resistant Staphylococcus aureus isolates in healthy students

محل انتشار:

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

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خلاصه مقاله:

Introduction and Objectives: Staphylococcus (S.) aureus is the most common cause of skin and soft tissue infections. Arginine catabolic mobile element (ACME) and Panton-Valentine leukocidin (PVL) are known as survival factors of S. aureus on the skin, mucous membrane and soft tissue. The current study is aimed to detect ACME-arcA and PVL genes among nasal methicillin resistant S. aureus isolates in the student population. Materials and Methodes: A total of 400 nasal samples were obtained from high school students of Tabriz, Iran. The antibiotic resistance profile of S. aureus isolates were determined by the disk diffusion method. The presence of mecA and ACME-arcA and PVL genes was examined by PCR reaction. Results: Of the 65 positive S. aureus isolates, 2.75 % (11/400) cases were MRSA nasal carriage and 27.69% of isolates were multidrug resistance (MDR). Based on PCR results, 20 (30.76%) of isolates were positive for mecA and 28 (43.07%) isolates for ACME-arcA gene and 10 (15.38%) isolates were positive for PVL. There is a significant relationship between the presence of ACME-arcA gene and the frequency of mecA positive strains (P <0.05). Conclusion: The prevalence of carriage of ACME-arcA/ PVL-positive S. aureus indicate an essential need for monitoring of nasal carriers in healthy community to prevent subsequent infections.

کلمات کلیدی: S. aureus, nasal carriage, MRSA, PVL, ACME-arcA

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