عنوان مقاله:

Comparison of prevalence of Microbial Surface Components Recognizing Adhesive Matrix Molecules (MSCRAMMs) among Staphylococcus aureus isolates in a burn unit with non-burning units in Isfahan, Iran

محل انتشار:

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

تعداد صفحات اصل مقاله: 1

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خلاصه مقاله:

Introduction and Objectives: Staphylococcus aureus is one of the most important pathogens in burn infections that can be colonized in the nose and increase the risk of infections. Materials and Methods: A total of 85 S. aureus isolates were isolated from clinical and nasal hospitalized patients and health care workers (HCWs) in a burn unit and non-burn units. Genes encoding penicillin binding protein 2a (mecA) and adhesive surface proteins, including fibronectin binding proteins (fnbA, fnbB), fibrinogen binding protein (fib), laminin binding protein(eno), collagen binding protein (cna), elastin binding protein (ebps), intracellular adhesion operon (icaA and icaD) were detected using PCR method. Results: The rate of methicillin-resistant S. aureus (MRSA) among burn and non-burn isolates were 62% (18/29) and 25% (14/56), respectively. The most prevalent MSCRAMMs genes in burn units were eno (86%) and fib (66%). The most common gene pattern in burn center was icaA+fib+eno. The frequency of icaD, fib and ebpS was higher in clinical samples than nasal samples. No relation was found between the MSCRAMMs genes in the burn unit and non-burn units. Conclusion: The high prevalence of MRSA in burn center can be a new challenge for clinicians. The higher frequency of icaD, fib and ebpS in clinical isolates than nasal isolates may reflect the important role of these genes in colonization and pathogenesis of S. aureus.

کلمات کلیدی:

Staphylococcus aureus, MRSA, Surface Proteins, MSCRAMM proteins