Noushin Marhamati, Clin Microbiol 2018, Volume 7
DOI: 10.4172/2327-5073-C2-037

The presence of hlg gamma-hemolysin in MRSA isolated from health care staff in Mofid Children's Hospital, Tehran, Iran

Noushin Marhamati
Shahid Beheshti University of Medical Sciences, Iran

Background & Aim: Methicillin resistance *Staphylococcus aureus* (MRSA) is a type of Staphylococci that is resistant to the antibiotics such as methicillin, cloxacillin, dicloxacillin, naficillin and cephalosporins. The hlg is an important gene in MRSA strains of *S. aureus*. Gamma-hemolysin is toxic for human erythrocytes. In present study, we sought to examine the prevalence of MRSA strains of *S. aureus* and detect the gene of hlg in health care staff.

Materials & Methods: The descriptive study was conducted from January to December 2014. In this survey, 229 nose specimens were taken from the health care staff of Mofid Children's Hospital. The isolates were identified as *S. aureus* based on biochemical and phenotypical tests. To determine the profile of antibiotic resistance of *S. aureus* isolates, the disk diffusion method (Kirby-Bauer) was used according to 2013 CLSI guidelines. The PCR assays were used for detection of hlg.

Results: From 229 health care staff, 200 (87.33%) were female and 29 (12.66%) were male. Out of 229 samples, 27 (12%) isolates were positive for *S. aureus* of which 21 (77.7%) were MRSA and 6 (22.3%) were MSSA (Methicillin Sensitive *S. aureus*). PCR assays for detection of hlg were used. Overall, 18 (85.71%) of MRSA isolates were positive for the presence of hlg.

Conclusion: In conclusion, gamma-hemolysin appears to be a more possible virulence factor than other virulence factors in MRSA isolates.

Biography

Noushin Marhamati is Shahid Beheshti University of Medical Sciences, Tehran, Iran.

dr_fallah@yahoo.com

Notes: