Original Paper

The Prevalenceof Antibiotic Resistance Pattern of *Staphylococcus Aureus* Isolated from Nasal Carriage of Surgical Ward's Staff in ShahidrajaeeHospitalofTonekabon,Iran

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Abstract

Background and Objective: Staphylococcusaureus is one of the important factors causing nosocomial infections. Typically 25-30 percent of healthy people carry the bacteria in their anterior nasal cavity. The physicians(50%), nurses (70%) and hospital staff (90%) are the carriers of this bacteria, leading to the infection of inpatients. The emergence of antibiotic-resistant Staphylococcus strains to vancomycin and methicillin has brought about several problems in treatment of the infections caused by Staphylococcus strains. Hence, we aimed to study the frequency of *staphylococcus aureus* carriers and resistance pattern among medical personnel of the surgical ward in ShahidRajaee hospital, Tonekabon.

Material and Methods: this analytic-descriptive study was conducted on the samples taken from nasal carriage of medical staff of surgical ward (N=120). Antibiotic- resistant of Staphylococcus strains was assessed by antibiogram and disk diffusion (DAD), in accordance with CLSI standards.

Results: of 34 (28.33%) who are nasal carriers of staphylococcus, 12 are over 30 years old and 24 under 30. Based on antibiogram, 1.97% of specimens are sensitive to Gentamicin and Co-trimoxazole, 1.94% to Ciprofloxacin, 2.88% to Vancomycin and 6.20% to Methicillin. In addition, 100% of specimens are resistant to Ampicillin, 1.97% to Penicillin and 2.88% to Amoxicillin. Four isolates areresistant,both to methicillin and vancomycin.

Conclusion: In this study, the spectrum of *S. aureus* resistant and sensitive strains to some antibiotics is similar to other studies, but a dramatic increase is seen in the rate of MRSA and non-susceptible cases to vancomycin. The Effectiveness of Penicillin, Amoxicillin and Ampicillin is still very low on *S. aureus* samples.

Key words: Prevalance Resistance Pattern, *Staphylococcus aureus*, Medical Staff, Nasal Cavity, Tonekabon

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