Original Paper

Antibiotic resistance in *Staphylococcus aureus* isolated from clinical samples by disk diffusion and PCR methods

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Abstract

Background and Objective: Resistance of *Staphylococcus aureus* to antibiotics is one of the major global health problems in human societies. Thus, evaluation of pattern of antibiotic resistance in its different strains is very important. This study was carried out to evaluate the antibiotic resistance in *Staphylococcus aureus* isolated from clinical samples by disk diffusion and PCR methods.

Methods: In this laboratory- descriptive study, 50 isolates of *Staphylococcus aureus* to be identified from clinical specimens. Methicillin resistance was examined using PCR and antibiotic susceptibility of isolates was tested by disk diffusion method.

Results: 50 isolates were resistant to methicillin, ampicillin and penicillin. The resistance of isolates to erythromycin, Gentamicin, Clindamycin and Ciprofloxacin were 48%, 34%, 34%, 34%, respectively. The PCR method showed that 98% of Methicillin Resistance of *Staphylococcus aureus* isolates carried the methicillin resistant gene.

Conclusion: This study indicated that 98% isolates harbor mecA genes and more resistant to methicillin related mecA genes.

Keywords: *Staphylococcus Aureus*, Antibiotic Resistance, Disk diffusion method, PCR

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