



PREVALENCE OF INDUCIBLE CLINDAMYCIN RESISTANCE IN STAPHYLOCOCCUS AUREUS FROM CLINICAL SPECIMEN OF SKMCH MUZZAFFARPUR

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ABSTRACT **Introduction:** *Staphylococcus aureus* emerged as one of the most important causative agent of nosocomial infection. Clinical manifestation range from skin infection, simple abscess, pneumonia to soft tissue infection. Resistance to macrolide, lincosamine and streptogramin has been reported mediated by *mrsA* gene coding for efflux mechanism^[1,2], which is identified by simple D test method^[1].

Materials and method: Study carried out in the department of microbiology, SKMCH Muzaffarpur. A total 450 isolates of staphylococcus aureus from wound swab, pus, throat swab, suction tip, catheter tip and urine, obtain from Indoor and O.P.D patient during period of 1 yr. *Staphylococcus aureus* were identified by using standard microbiological culture and biochemical reaction. Then subjected to antimicrobial susceptibility testing by modified Kirby bauer's disc diffusion method. D zone is identified, showing inducible clindamycin resistance.

Results and conclusions: Of the 450 *Staphylococcus aureus* isolates, 54 were D Test positive, showing inducible clindamycin resistance, which is around 12% of clinical staphylococcal isolates. It is observed that simple D test can overcome the ambiguity regarding inducible clindamycin resistance and confirm its sensitivity, which would help clinician for appropriate treatment. Because in case of MRSA infection range of drug is limited, clindamycin can be used as valuable alternative.

KEYWORDS :

INTRODUCTION

Staphylococcus aureus emerged as one of the most important causative agent of nosocomial infection^[1,4]. Clinical manifestation range from skin infection, simple abscess, pneumonia to soft tissue infection.

Resistance to macrolide, lincosamine and streptogramin has been reported mediated by *mrsA* gene coding for efflux mechanism, which is identified by simple D test method¹

MATERIAL & METHODS

Study carried out in the department of microbiology, SKMCH muzaffarpur. A total 450 isolates of staphylococcus aureus from wound swab, pus, throat swab, suction tip, catheter tip and urine, obtain from Indoor and O.P.D patient during period of 1 yr.

Staphylococcus aureus were identified by using standard microbiological culture and biochemical reaction. Then subjected to antimicrobial susceptibility testing by modified Kirby Bauer's disc diffusion³ method. D zone is identified, showing inducible clindamycin resistance².

RESULT AND CONCLUSION

Of the 450 *Staphylococcus aureus* isolates, 54 were D Test positive, showing inducible clindamycin resistance, which is around 12% of clinical staphylococcal isolates^[5]. It is observed that simple D test^[6,7] can overcome the ambiguity regarding inducible clindamycin resistance and confirm its sensitivity^[8], which would help clinician for appropriate treatment. Because in case of MRSA infection range of drug is limited, clindamycin can be used as valuable alternative.



Picture: Positive D Test

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