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Prevalence of Methicillin resistance staphylococcus aureus from referred samples at national laboratory, Ethiopian

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Abstract

ABSTRACT

Back ground: Methicillin resistance staphylococcus aureus has become increasingly prevalent worldwide. The prevalence, however, varies markedly from one country to another. Thus to determine the prevalence and antimicrobial susceptibility pattern of MRSA is of highest priority.

Objective: This study was undertaken to determine the prevalence of MRSA and antimicrobial susceptibility pattern of staphylococcus aureus isolates.

Methods: using GOLD standard conventional culture method, specimen brought to the laboratory were inoculated to blood agar plates supplemented with 5% sheep blood and mannitol salt agar plates (Difico, Detroit, Mich, USA). All culture plates incubated at 35 +/- 1 for about 24hrs and examine for bacterial growth. Colonies showing typical beta hemolysis on blood agar and fermentative growth on mannitol salt agar were further identified as S.aureus by gram stain, catalase, coagulase and DNAse tests and all steps where following standard procedure. The antimicrobial susceptibility pattern of all staphylococcus aureus isolates was determined by agar diffusion method following the clinical laboratory standard institute guidelines.

Result: A total number of 1942 clinical specimens were examined, out of these 204 where S. aureus and 120 (58%) were resistance to methicillin. All MRSA isolates were resistance to most of the drugs tested but were 100% sensitive to vancomycin.

Conclusion: There is a progressive increase in MRSA prevalence and the present study showed higher rate prevalence when compared to values in some other countries and previous study conducted in Ethiopia.