

Antimicrobial activity assessment confirms Tetracyclin sensitivity against isolated strain of Methicillin resistant *Staphylococcus aureus* (MRSA-MSU-101)

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Abstract

A large number of micro-organisms colonize in human body. These resident microbes gives protection to the healthy human body, but at the same time when the immune system of an individual is weakened these microbes can become pathogenic and can cause infection. These microbes are adapting to the human environment very fast and using various mechanisms for survival and pathogenicity. Recently several cases has been reported of multi drug resistant *Staphylococcus aureus* especially in hospital settings. In this connection, present paper discusses the assessment of antimicrobial activity of isolated methicillin resistant *Staphylococcus aureus* strain (MRSA-MSU-101) and confirms the tetracyclin sensitivity against the isolated strain. Initially, isolation of *Staphylococcus aureus* strains from skin of various community people has been carried out, then the screening has been done for the methicillin resistant *Staphylococcus aureus* strain. One strain shown methicillin resistance labelled as MRSA-MSU-101 and considered as potentially pathogenic. Subsequently, for this strain tetracyclin efficiency assessed by antibiotic disc diffusion test (Kirby-Bauer method). This strain MRSA-MSU-101 has shown significant susceptibility against tetracyclin (1cm-diameter, zone of inhibition). Therefore, tetracyclin antibiotic is recommended for treatment against methicillin resistant *Staphylococcus aureus* strains.

Keywords:

Methicillin resistant *Staphylococcus aureus*, Gram positive, Catalase, Drug resistance, Tetracyclin