

Anti-MRSA Potentials of *Moringa oleifera* Leaves and Bark

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Background: *The strains of Staphylococcus aureus that developed resistance to penicillin-related antibiotics, including methicillin are called Methicillin Resistant Staphylococcus aureus (MRSA). S. aureus can cause various infections and the resulting conditions range from mild to life threatening. These conditions include: septicemia (blood poisoning), pneumonia (lung infection), osteomyelitis (bone infection), endocarditis (heart valve infection), urinary tract infection (e.g. bladder infection), septic bursitis (small fluid-filled sacs under the skin. Many public health experts are alarmed by the spread of MRSA and it is called as a 'Superbug' by CDC.*

This study was focused to screen the antibacterial potentials of Moringa oleifera leaves and bark. The ethanolic and methanolic extracts of M. oleifera leaves and bark were screened for their antibacterial potentials against 11 clinical isolates of MRSA isolated from the samples of the patients reported to Dr B. Lal Clinical Laboratory Pvt. Ltd, Jaipur for routine diagnosis.

The results from our experiments showed the antibacterial potentials of ethanolic extracts of M. oleifera leaves and bark with the mean zone sizes of 12.7±2.0 and 12.8±5.6, respectively and the antibacterial potentials of methanolic extracts of M. oleifera leaves and bark with the mean zone sizes of 10.7±1.9 and 10.9±2.2, respectively.

The results of this study can be further analysed for screening the bioactive compound responsible for the anti-MRSA activity of M. oleifera leaves and bark and thus can lead to the development of novel therapeutic agents capable of controlling or curbing the problem of drug resistance.

Keywords: MRSA, *Moringa oleifera*, Antibacterial potential, Anti-MRSA.
