

Antibacterial Activity of Hydro Alcoholic Extract of *Raphanus Sativus*

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Background & Objectives: The radish (*Raphanus sativus*) is a plant of the Brassicaceae family. *R. sativus* is an annual herb. They are grown and consumed as vegetable, throughout the world. Radishes have numerous varieties, varying in size, color and duration of required cultivation time. Roots, flowers and pods of the plant are active against gram-positive bacteria like *Staphylococcus aureus* and *Bacillus subtilis*. This study was designed to examine in vitro anti-bacterial potential of methanolic and ethanolic extracts of *R. sativus*.

Methods: The inhibitory effect of methanolic and ethanolic extracts of leaf of *R. sativus* and root of *R. sativus* was tested against 2 Gram positive bacteria: *Bacillus cereus* and *Staphylococcus aureus* and 5 Gram negative bacteria: *Salmonella typhi*, *Kelebsiella pneumonia*, *Eschrichia coli*, *Pseudomonas aeruginosa*, and *Proteus mirabilis*. These species were originally isolated from clinical specimens. Disc diffusion methods using various different concentrations from 600 mg/ml to 50 mg/ml of extracts was applied for antibacterial susceptibility test. The viability of bacterial species was analysed through determining minimum inhibitory concentration (MIC) and minimum bacteriocidal concentration (MBC).

Results: The extract of root of *R. sativus* was active against *S. aureus*, *E. coli* and *B. cereus*, The zone of inhibition for these bacterial species were noticeable MIC and MBC of these extracts for *S. aureus* and *B. cereus* were also noticeable.

Conclusion: The extracts of *R. sativus* can be used as an antibacterial substance against some of bacterial species specially *S. aureus*.

Keywords: *Raphanus Sativus*; Bacteria; Disc Diffusion Methods; Hydro Alcoholic Extract