

Evaluation of antibacterial activity of chloroform extract of selected medicinal plants against important plant and human pathogenic bacteria

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Abstract

Medicinal plants play a vital role in the treatment of various plant diseases and hospital infections caused by bacteria. The aim of this work was to evaluate the effectiveness of chloroform extract of five medicinal plants against three gram-positive and five gram-negative bacteria using agar disc diffusion method at four replications. The results indicated that the chloroform extract of *Peganum harmala* fruits, *Sophora alopecuroides*, *Acroptilon repens* and *Eucalyptus* leaves at 500 mg/mL concentration showed the high inhibitory effect on *Pseudomonas aeruginosa*, *Staphylococcus aureus*, *Pseudomonas syringae* subsp. *syringae* and *Rathayibacter toxicus*, respectively. But *Hyssopus officinalis* don't show any effect on the all of tested bacteria. The present study finds clear evidence supporting the traditional use of the plants in treating plant diseases and hospital infections related to bacteria. Our results suggest that these plants may be a good candidate for further biological and pharmacological investigations.

Keywords: Medicinal plants, Antibacterial activity, Agar disc diffusion method