

Study on Antimicrobial Effect of Hydroalcoholic Extract of *Ruta graveolens* on 8 Pathogenic Bacteria

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Background & Objectives: Regarding to side effects of chemical and synthetic drugs, positive concern to using herbal products instead of chemical drugs is increased from late years of 20th century. *Ruta graveolens* is one of the oldest plant which is used in traditional medicine of Iran and other old countries and is used for different medical purposes and showed a variety of therapeutic effects. Aim of this study is investigating antimicrobial effect of hydroalcoholic extract of *Ruta graveolens* on 8 species of pathogenic bacteria.

Methods: In this study standard strains of *Enterococcus faecalis*, *Staphylococcus aureus*, *Staphylococcus epidermis*, *Streptococcus pneumonia*, *Escherichia coli*, *Klebsiella pneumonia*, *Salmonella typhi* and *Enterobacter cloace* prepared from Center of Bacteria and Fungi collection, Iranian Institute of Scientific and Industrial Researches, are used. Effect of Hydroalcoholic extract of this plant on growth of mentioned bacteria is determined by using disc diffusion methods and also by measuring MIC in comparison to effects of 8 common antibiotics on those bacteria.

Results: Hydroalcoholic extract of *Ruta graveolens* did not show inhibitory effect on growth of studied bacteria in this study.

Conclusion: It seems that this is because of resistant character of used bacteria and weak or non antibacterial effect of this plant on resistant bacteria.

Keywords: *Ruta graveolens*; Antimicrobial Effect; Hydroalcoholic Extract