

## Short Communication

# Antimicrobial effect of *Ruta graveolens* extract on pathogenic bacteria

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## Abstract

**Background and Objective:** *Ruta graveolens* is a plant used in traditional medicine with variety of therapeutic effects. This study was done to evaluate the antimicrobial effect of hydro and alcoholic extracts of *Ruta graveolens* on 8 species of pathogenic bacteria.

**Methods:** In this descriptive study, standard strains of *Enterococcus faecalis*, *Staphylococcus aureus*, *Staphylococcus epidermis*, *Strptococcus pneumonia*, *Escherichia Coli*, *Klebsiella pneumonia*, *Salmonella typhi* and *Enterobacter Cloace* were obtained from Iranian institute of scientific and industrial research center. The effect of hydro and hydroalcoholic extracts of *Ruta graveolens* on the growth of bacteria was determined by disc diffusion and serial macro dilution methods. Minimum inhibitory concentration (MIC) for each extract was determined and the findings were compared with 8 common antibiotics including Co-trimoxazole, Oxycycline, Vancomycin, Erythromycin, Furazolidon, Tetracycline, amoxicillin / clavulanic acid and Ampicillin/sulbactam.

**Results:** Hydro and hydroalcoholic extracts of *Ruta graveolens* did not show any inhibitory effect on growth of the pathogenic bacteria even in the presence of high concentration (3mg/ml).

**Conclusion:** The extracts of arial organs of *Ruta graveolens* had no inhibitory effect on growth of the common human pathogenic bacteria.

**Keywords:** *Ruta graveolens*, Pathogenic bacteria, Antibiotic, Minimum inhibitory concentration

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Received 6 Jul 2013

Revised 21 Jan 2014

Accepted 4 Feb 2014