**Research Article**

AAccaaddeemmiicc SScciieenncceess

International Journal of Current Pharmaceutical Research

ISSN- 0975-7066 Vol 5, Issue 4, 2013

**COMPARATIVE EVALUATION OF ANTIMICROBIAL PROPERTIES OF CITRUS VARIETIES AVAILABLE IN MALAYSIA MARKET**

**MAHENDRAN SEKAR\*1, NOR SAFWAN HADI BIN NOR AFENDI1, PUTERI NURUL FATIHAH BINTI DATU BANDIRA1, ZAKIAH SYAHIRAH BINTI MOHD HASHIM1, EZZA IZZATY BINTI MOHD NOR1, NALINA KRISHNASWAMY2, MOHD SYAFIQ BIN ABDULLAH1**

**1Faculty of Pharmacy and Health Sciences, Universiti Kuala Lumpur, Royal College of Medicine Perak, Ipoh – 30450, Malaysia, 2Faculty of Medicine, Department of Microbiology, Universiti Kuala Lumpur, Royal College of Medicine Perak, Ipoh – 30450, Malaysia. Email: mahendransekar@rcmp.unikl.edu.my**

***Received: 12 July 2013, Revised and Accepted: 18 August 2013***

**ABSTRACT**

Citrus has been cultivated in many tropical and subtropical countries due to its culinary and medicinal properties. Its antimicrobial properties are well known. There are few varieties of citrus available in Malaysian market i.e. *Citrus aurantifolia*, *Citrus reticulata*, *Citrus microcarpa*, *Citrus limon* and *Citrus sinensis*. The present study compares the antibacterial properties of methanol extract of five varieties of citrus peels by disc diffusion method against *Streptococcus pyogenes, Staphylococcus aureus, Escherichia coli* and *Pseudomonas aeruginosa*. There is no inhibition were observed for all the citrus peel extracts at 5 and 10 mg/ml. The methanol extract of *Citrus microcarpa*, *Citrus reticulata* and *Citrus sinensis* at 20 mg/ml showed better inhibition than compare to *Citrus aurantifolia* and *Citrus limon* against *Staphylococcus aureus and Escherichia coli*. However, the standards at lower concentrations showed higher inhibition than compare to all the extracts against entire organism. These findings can form the basis for further studies to isolate their active constituents to perform its biological activities.

**Keywords:** Citrus peels, Antimicrobial, Disc-diffusion method