Determination of antimicrobial activity of some selected plant species in Rubiaceae family

K C K Ekanayake, *C M Hettiarachchi; *Department of Chemistry, Faculty of Science, University of Colombo*

Introduction

Knoxia zeylanica (Ela ratmal)

Investigation of new antimicrobial agents has become one of the key aspects of today's world due to the continuous increase in resistance of pathogenic microbes.

Sri Lanka has a rich collection of plants that can play a huge therapeutic role. This study was designed to investigate undisclosed antimicrobial activities of few such indigenous herbal plants in Rubiaceae family.

Ophiorrhiza mungos (Dathketiya)

Methodology

Authentication and collection of fresh plant parts

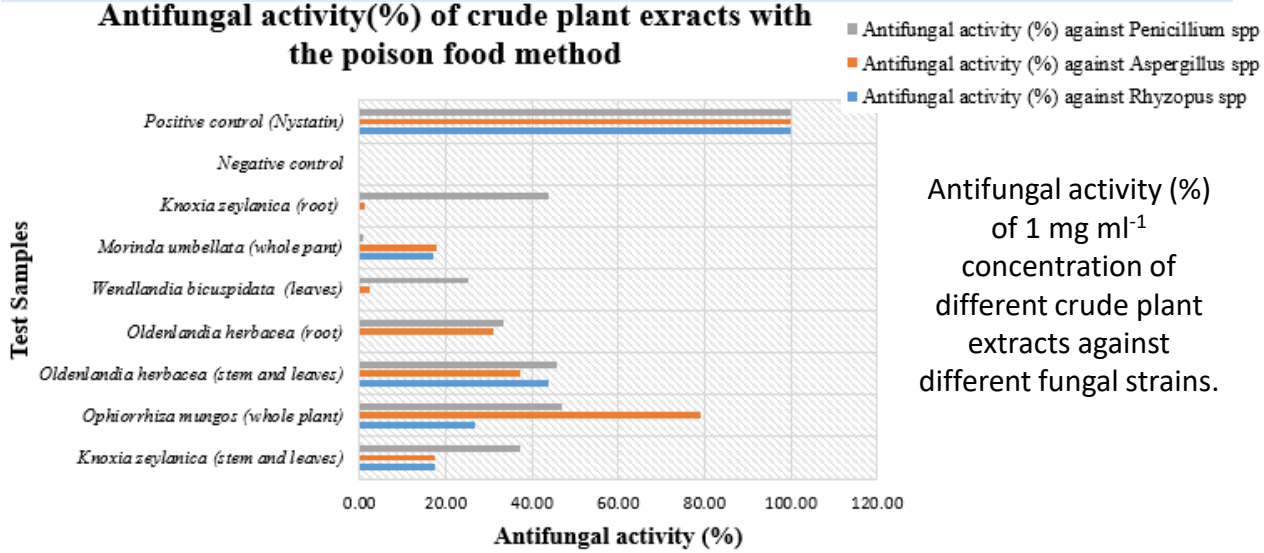
Crude extracts were obtained
Solvent mixture; DCM: MeOH (1:1)

Microbial Assay
- Antifungal assay; Poison food technique
- Antibacterial assay; Agar well diffusion method

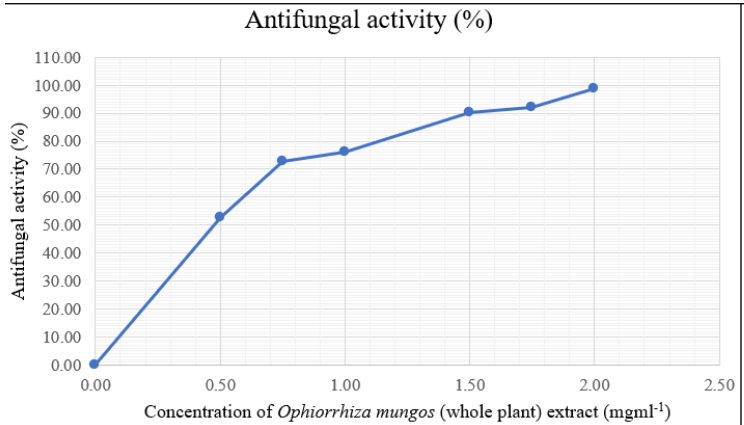
Conclusions

- *K. zeylanica* and *O. mungos* could be potential candidates to search for anti-bacterial and antifungal compounds, respectively.
- There are active compounds inside these ethnomedicinally valuable plant species which are responsible for the curing of these various deceases. Thus, it is important to carry out research on investigation of those active ingredients contain in those herbal medicine.

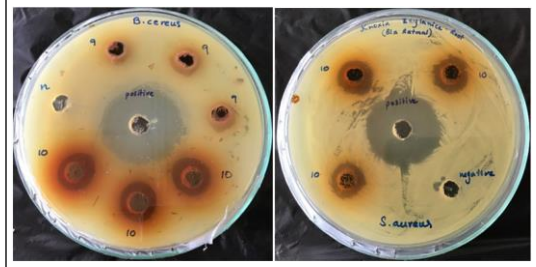
Results



Antifungal activity (%) of 1 mg ml^{-1} concentration of different crude plant extracts against different fungal strains.



Antifungal activity (%) of different concentrations *O.mungos* crude plant extract against *Aspergillus spp*



Antibacterial activity of 1mg/well crude extract of *K.zeylanica* (root) against *S.aureus* and *B. cereus*