2013

Antimicrobial activity of Moringa Oleifera Lam-Plant in Kisumu county Kenya.

Okech, Peter Owino
Mount Kenya University

http://erepository.mku.ac.ke/handle/123456789/1194
Downloaded from Mount Kenya University, Institutional repository
ANTIMICROBIAL ACTIVITY

OF

MORINGA OLEIFERA LAM. - PLANT

IN KISUMU COUNTY - KENYA

A Research Project submitted for the award of Bachelor of Pharmacy Degree of the Mount Kenya University.

PETER OWINO OKECH

BACHELOR OF PHARMACY (MT. KENYA UNIVERSITY)

B/PHARM 09/04721

SCHOOL OF PHARMACY

MOUNT KENYA UNIVERSITY

2013
ABSTRACT

Plants have served as a basis of sophisticated traditional medicine and play essential role in primary health care in developing Countries despite being a source of drugs in modern medicine. Most unexpected results on usage are majorly due to over-dosage, unknown efficacy and lack of adequate knowledge of other detrimental by-products in the reference plant. The research project was on antimicrobial activity of selected parts of *Moringa oleifera* Lam in Kisumu County –Kenya, from five different extraction Solvents against five strains of bacteria and three strains of fungi; Using Disc-diffusion method.

Methanolic and Water extracts of Seeds; Hexane and Ethylacetate extracts of Stem barks and Water extracts of Leaves showed antibacterial activity against *Staphylococcus aureus* ATCC 25923. Methanolic and Water extracts of Seeds and Leaves; Hexane, Dichloromethane and Ethylacetate extracts of Stem barks all showed marked antifungal activity on clinical *Trichophyton mentagrophytes*. Only Water extracts of Seeds and Ethylecetate extracts of Stem barks showed antifungal activity against clinical *Microsporum gypseum*. The extracts of all the above selected plant parts (Seeds, Stems and Leaves) from the used Solvents (Water; Methanol; Hexane; Ethylacetate and Dichloromethane) showed No activity against *Pseudomonas aeruginosa, Escherichia coli*, *Salmonella typhi*, *Shigella dysenteriae* and *Candida albicans*.

The study demonstrated the claimed antimicrobial uses of the plant:- *Moringa oleifera* in traditional medicine and provides a scientific prove of the medicinal value. Further studies such as In-vivo should be done to confirm and clarify the mechanism of action of M. oleifera. The secondary metabolites that showed activity should be isolated and further tested with an aim of synthesizing new templates for antimicrobials.