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Antimicrobial Activities of Seed Extracts of Mango (*Mangifera indica* L.)

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ABSTRACT

Mangifera indica L. is a species of mango in the *Anacardiaceae* family. It is found in the wild in tropical regions and cultivated varieties have been introduced to other warm regions of the world. This present study aimed to investigate the *in vitro* antimicrobial activities of methanol and ethanol extracts of mango seed against 25 representatives gram positive, gram negative, acid fast bacteria and fungi. Mango fruit seed were extracted by Soxhlet using methanol and ethanol as solvents. The extracts were tested against the microorganisms using disc diffusion method at different concentrations: 5 mg/mL, 3.75 mg/mL, 3.125 mg/mL, 2.5 mg/mL, 1.875 mg/mL and 1.25 mg/mL). *In vitro* antibacterial activities of methanol and ethanol extracts of mango bulb showed inhibitions to tested organisms with variable inhibition zones. Except one organism (*Rhodococcus equi*), no resistance among the tested strains was shown. The mean zone of inhibition produced ranged between 5 mm and 18 mm with 18 mm/*Mycobacterium smegmatis* showed the highest zone of inhibition. In most test strains comparable zones of inhibitions were noted for both methanol and ethanol extract. *Candida albicans* and *Aspergillus niger* were both inhibited by the extracts. The methanol and ethanol extracts of mango seed showed good inhibitory effects against almost all tested strains. The inhibition zones produced by mango extract were less than those produced by standard positive control drug. This could be due to low diffusion rate of mango extract in agarose medium, a thing needed to be further investigated. The products are potential new antimicrobial therapy in the ethnopharmacology domain.

KEYWORDS

Antimicrobial; Mango Seed; *Mangifera indica* L.; Ethnopharmacology

Cite this paper

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