A-24 *In vitro* antifungal activity of *Cassia alata*

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Cassia alata (L) of the Family Leguminosae is a medicinal plant recommended by Ayurvedic and folk medical practitioners in Sri Lanka for the alleviation of ringworm and other fungal infections of the skin. Previous investigations by other workers have confirmed experimentally that the crude aqueous and ethanolic extracts of *Cassia alata* leaves possess antimicrobial activity.

The present investigations were undertaken to identify the active principle/s of the crude extract responsible for the antimicrobial effects. An activity guided sequential extraction of the plant leaves with various solvents demonstrated that the antimicrobial activity was confined to the ethyl acetate fraction. This fraction could inhibit the growth of *Candida albicans, Aspergillus niger, Penicillium* sp., *Trichophyton mentagrophytes, Trichophyton rubrum, Microsporum canis and Microsporum gypseum in vitro.* However bacterial species tested showed resistance against *in vitro* treatment with ethyl acetate fraction. None of the other fractions demonstrated antimicrobial activity. The minimum inhibitory concentration (MIC) for *Candida albicans, Aspergilllus niger* and *Penicillium sp.* was 2 mg/ml while the MIC for the dermatophytic fungi was 0.5 mg/ml.

Results of this investigation suggest that the antimicrobial compound/s present in the ethyl acetate fraction are more potent with respect to dermatophytic fungi than environmental fungi and therefore provide support for the therapeutic use of *Cassia alata* leaves by Ayurvedic medical practitioners for the treatment of ringworm and other fungal infections of the skin.