E2-42 Antimicrobial studies on *Alpinia calcarata* Rosc

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Alpinia calcarata (S. Heenaraththa) (family - Zingibaraceae) is cultivated in India and Sri Lanka for medicinal purposes. The rhizomes are commonly prescribed for arthritis in Sri Lanka.

A. calcarata of Indian origin showed antibacterial activity against two strains of bacteria. The present study examines antibacterial activity of *Alpinia calcarata* rhizomes grown in Sri Lanka.

From the rhizomes, volatile oil, pet ether, $CHCl_3$, EtOH and H_2O extracts were obtained. *Staphylococcus aureus* (NCTC 8532), *Staphylococcus epidermidis* (NCTC 4276), *Pseudomonas aeruginosa* (NCTC 10662), *Escherichia coli* (NCTC 10148), *Streptococcus pyogens* and *Streptococcus sanguis* were used as test organisms for antimicrobial study and Gentamycin discs as the reference. The inhibitory activity was determined by Kirby - Bauer disc diffusion technique. MIC values were determined by serial dilution method. Antifungal activity against *Cladosporium* was determined by bioautographic TLC assays.

Pet ether fraction and essential oil were active against *Staphylococcus aureus* mg/ml, *Stapylococcus epidermidis* 5 mg/ml, *Pseudomonas aeruginosa* > 20 mg/ml, *Escherichia coli* 10 mg/ml and 5 mg/l resp. *Streptococcus sanguis* 5 mg/ml and 2.5 mg/ml resp. *Streptococcus pyogens* 5 mg/ml. In antifungal studies too the essential oil and pet ether fractions were active against *Cladosporium*.

The reported tonic, stomachic, carminative, stimulant and other related effects of *A. calcarata* could be due to these activities.

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