

## A study on antibacterial and antifungal effect of *Rhinacanthus nasutus* Linn. (*Aniththa*)

Dayarathna MTA<sup>1</sup>, Jayarathna DL<sup>2</sup>

<sup>1</sup>Department of Cikitsa, Gampaha Wickramarachchi Ayurveda Institute, University of Kelaniya

<sup>2</sup>Department of Microbiology, University of Kelaniya

### Abstract

*Rhinacanthus nasutus* Linn. (Acanthaceae) is available in India, Taiwan, Thailand, South china, Sri Lanka and Madagascar. It is locally known as *Aniththa*. It is a shrub with white flowers, and is extensively used in traditional medicine to treat skin diseases. In Ayurvedic medicine the application of boiled extracts of *Aniththa* leaves is commonly used for the treatment of wounds. The present study is based upon the antibacterial effect of boiled extracts of *Aniththa* leaves on Gram negative (*E.coli*-ATCC25922, *Pseudomonas sp*-ATCC27853) and Gram positive (*Staphylococcus*-ATCC25923 and *Streptococcus sp*-ATCC12386) against the positive control Amoxicillin (10mg/ml). Antifungal effect was tested on *Candida albicans* against the positive control Flucanazole (2.5mg/ml). According to the results of the Antibiotic sensitivity test (Agar well diffusion Technique), both Gram negative as well as Gram positive organisms showed no inhibition for the *Aniththa* extracts (50µl) while the positive control showed 22mm for *Staphylococcus sp* and 19mm for *Streptococcus sp*. The positive control for antifungal effect showed an inhibition of 17mm while *Aniththa* boiled extract and crude extract showed 4mm and 7mm inhibitions respectively. This results concludes the fact that the antibacterial effect and antifungal effect of *Aniththa* leaf extract is dose dependent and if the concentration of the extracts are higher than the test concentrations the effect would be more prominent.

**Key words:** *Rhinacanthus nasutus* (Linn) Leaves, antibacterial, anti-fungal activity, Aniththa

**e-mail:** tadayarathna@gmail.com