

**ANTIOXIDANT ACTIVITY AND ANTIBACTERIAL ACTIVITY  
OF "SHADDHARANAYOGAYA"  
PRESCRIBED FOR HYPERTENSION**

**A PROJECT REPORT PRESENTED BY**

**H. H. SHANTHILATHA**

**to the Board of Study in Plant Sciences of the  
POSTGRADUATE INSTITUTE OF SCIENCE**

*In partial fulfillment of the requirement*

*for the award of the degree of*

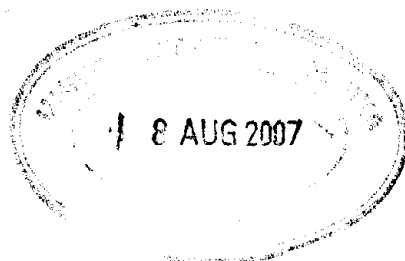
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**SRI LANKA**

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Ayurvedic system of medicine has been playing a significant role in the treatment of various human ailments since time immemorial. These medicines are mostly based on medicinal plants and the experiences of the great ancient physicians. There has been a global interest in scientifically validating the efficacy of the medicinal plants and ayurvedic medicines.

'Shaddharanayogaya' decoction and infusion appear to be widely used in the treatment of hypertension. The purpose of this study is to determine the antioxidant and antibacterial potential of this medicine and its constituents *in vitro*. The DPPH scavenging method was used to investigate the antioxidant activity. The antibacterial activity was measured using the agar diffusion method.

The decoction and the infusion showed only moderate antioxidant activity compared to  $\alpha$ -tocopherol. Among the six constituent plant materials, *Terminalia chebula* (Aralu) demonstrated highly potent antioxidant activity. The decoction and infusion showed inhibition of the growth of *Staphylococcus aureus* and Methicillin Resistant *Staphylococcus aureus* and no inhibition of *Escherichia coli*. It was also found that the medicine does not inhibit the growth of the beneficial gastrointestinal bacteria, *Lactobacillus* species.