

**A comparative preliminary study of anti-bacterial effect of ayurvedic compound preparations of Dathree choorna and Hinguastaka choorna**

B M Nageeb<sup>1\*</sup>, A P G Amarasinghe<sup>1</sup> and S Widanapathirana<sup>2</sup>

<sup>1</sup> *Institute of Indigenous Medicine, University of Colombo, Rajagiriya*

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

Dathree choorna and Hinguastaka choorna are compound preparations commonly used in ayurvedic system of medicine in Sri Lanka. These powder preparations are being used specially in gastro intestinal disorders, such as diarrhoea, dysentery, indigestion and vomiting. Most of these conditions may develop due to bacterial infections. The main objective of this study is to evaluate the anti bacterial effect of these preparations. Minimum human single dose of these drugs (2.5g) was dissolved in sterile distilled water and kept in the shaker at 100 rpm, continuously for 04 hours in order to get the maximum soluble liquid extract of these drugs. 0.7g of nutrient broth was dissolved in 50 mL of distilled water and transferred in to five test tubes (10 mL /tube) and sterilised by autoclaving at 121 °C for 20 minutes. These nutrient broth tubes were inoculated by using inoculating needle with pure test cultures of *Pseudomonas aeruginosa*, *Escherichia coli*, *Staphylococcus aureus*, *Salmonella typhi* and *Klebsiella*. These tubes were incubated at 37 °C for 18 to 20 hours. 2.8 gram of nutrient agar was dissolved in 100 mL of distilled water and sterilised by autoclaving at 120 °C for 20 minutes. This Agar was transferred into five sterilised Petri dishes at 40 °C and allowed to solidify on a horizontal plane. These plates were sealed and kept in the incubator at 37 °C for 24 hours to exclude any contaminations and to reduce the moisture content. Measured, 0.05 mL of each nutrient broth culture was added to these solidified Agar plates by using sterile 1.0 mL glass pipette and spread evenly by using a sterilised glass spreader. On this seeded Agar plates already sterilised metal cylinders were kept with gentle pressure. These cylinders were filled with 0.1 mL of the liquid extract of Dathree choorna, Hinguastaka choorna, and de ionised sterilised distilled water. These plates were sealed and incubated at 37 °C. This same procedure was repeated three times for each organism with antibiotics Gentamycin and Chloramphenicol as control drugs. Clear inhibition of 1 cm zone of the bacterial lawns

were observed repeatedly around the metal cylinder containing extract of Hinguastaka choorna in the plates of *Salmonella typhi* indicating that the water extract Hinguastaka choorna has anti bacterial effect on *Salmonella typhi*. The results of this preliminary study may justify scientifically the use of Hinguastaka choorna in some infective conditions of gastro intestinal tract such as diarrhoea, dysentery and indigestion.