

In-vitro study to evaluate the antibacterial activity of *Buddharaja Kalka* with *Makarandanvilapambul Anupana* against *Staphylococcus aureus*

Krishan WA

Gampaha Wickramarachchi Ayurveda Institute, University of Kelaniya, Yakkala, Sri Lanka

Abstract

Buddharaja Kalka is a herbo-mineral drug preparation. However, there are three prescriptions available in Sri Lanka. It is used in upper respiratory diseases, particularly in common cold and bronchial asthma etc. The evaluation of the antibacterial activity of the *Buddharaja kalka* with *Makarandan anupana* against *Staphylococcus aureus* was the main objective of this study. *Sadilingam, Gandaka, Hiriyal, Manosheela, Sasyaka, Ahipena* are special ingredients in the *Buddharaja Kalka* and it consists of 1/3 of *Sweta Chandana* and 1/3 of *Rakta Chandana*. Three market samples of *Buddharaja Kalka* from different manufactures were selected. Single minimum human dosage in daily doses of this drug (5g) was dissolved in *Makarandanvilapambul Anupana* and shaken well to get the maximum soluble liquid extract. Nutrient broth and nutrient agar were prepared and sterilized according to manual. The tests were performed by well diffusion method. According to the results, Amoxicillin showed 2cm - 2.5cm clear inhibition zones of the bacterial lawn on every test drug sample. *Buddharaja Kalka* sample A showed 15 mm zone of inhibition against *Staphylococcus aureus* while sample B showed 17 mm zone and sample C showed 18 mm zone of inhibition. These results were statistically analyzed by using SPSS software. All the means were within accepted levels and p value was set at $P < 0.5$ in comparison to Amoxicillin. All 3 samples which were tested had an antibacterial effect in comparison to the control. It can be concluded that *Buddharaja Kalkaya* with *Makarandan Anupana* had an anti-bacterial effect against the *Staphylococcus aureus*.

Keywords: *Makarandan Anupana*, antibacterial effect, *Staphylococcus aureus*

Corresponding E-mail: wanigathungakrishan@gmail.com