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Preliminary study of anti-bacterial effects of an Ayurvedic recipe Sharkaradi kalka

B Roshana[1], A P G Amarasinghe[2*] and S Widanapathirana[3]
[1] *Institute of Indigenous Medicine, University of Colombo, Rajagiriya*
[2] *Bandaranaike Memorial Ayurvedic Research Institute, Navinna, Maharagama*
[3] *Department of Microbiology, University of Kelaniya, Kelaniya*

Sharkaradi kalka is a well known compound preparation of the traditional system of medicine in Sri Lanka. The name Sharkaradi kalka indicates the presence of Sarkara or cane sugar as the main ingredient of its recipe. This particular recipe is being used at a dose of 250mg/dose orally as a curative measure against certain disease

conditions specially for fever, cough, dysponea, and upper respiratory tract infections. One of the main causes for the above conditions is bacterial infection. The objective of this study was to evaluate the anti bacterial effects of Sharkaradi kalka.

0.1gm. of Sharkaradi kalka was dissolved in 5 ml. of de ionized sterile distilled water and filter sterilized using a Hemmings filter. This sterile preparation of Sharkaradi kalka was used in this anti-bacterial assay. 1.3 gm. of Nutrient broth was dissolved in 100 ml. of distilled water and transferred to test tubes and sterilized by autoclaving at 121 °C for 15 minutes. Nutrient broth tubes were inoculated separately with identified pure test culture of *Pseudomonas aeruginosa*, *Escharecia coli*, *Staphylococcus aureous*, and *Salmonella typhi*.10 ml. of sterilized Nutrient Agar was poured into Petri dishes and incubated for 24 hours at 30°C. Seeded nutrient agar plates were then prepared using the above cultures. In the seeded agar plates, 2 wells were cut with the metal cork bore and one well was filled with sterile distilled water(control) and the other was filled with dissolved and filtered Sharkaradi kalka solution, and incubated for 24 hours. This method was repeated 5 times for each test organism. Control experiments were performed using sterile water and a known antibiotic preparation, Ampicillin (10mg/ml).

Clear inhibition zones of the bacterial lawns were observed repeatedly in the plates of *Pseudomonas aeruginosa* indicating that the water extract of Sharkaradi kalka has anti-bacterial effect on *Pseudomonas aeruginosa*. The results of this preliminary study may justify scientifically, the use of Sharkaradi kalka in some infective conditions, since the last few centuries by traditional Ayurvedic practitioners in Sri Lanka. However, the exact mechanism of the anti-bacterial effect of this preparation still remains to be established.