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Successive fraction of Cinnamomum bark shows inhibition of toxins released by various bacterial strains

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Many pathogenic bacteria and fungi produce potentially deadly toxins that cause cytotoxicity or impaired cellular function either at the site of colonization or other positions in the body through receptor-mediated interactions. Several agents including biotic and abiotic environments, competing microbes and chemical cues affect toxin expression in these pathogens. Recent study indicates that various natural compounds can modulate toxin production in pathogenic microbes. Five different successive fractions of the bark of cinnamon were prepared using pet ether, chloroform, ethyl acetate, ethanol and water using cold maceration. All the fractions were taken against various bacteria, such as *Bacillus subtilis* NCIM-2545, *Escherichia coli* NCIM-2493, *Staphylococcus aureus* NCIM-5021, *Klebsiella pneumoniae* NCIM-2706, *Staphylococcus epidermidis* NCIM-2493, *Shigella* NCIM-5288 and *Micrococcus luteus* NCIM-2169. Then the result was compared with normal growth curve of individual bacteria. Changes in logarithmic phase and stationary phase of growth of bacteria, was observed. The comparison of growth patterns of extract treated and untreated with various microbial stains showed that the pace of development by extract is approximately 30-40% more capital than that of untreated.

Biography

Surendar Arulmani is presently pursuing his BPharm at JSS University, Mysore, JSS College of Pharmacy, Udthagamandalam.

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