In vitro Antimicrobial activities of Chloroformic, hexane and Ethanolic extracts of Citrullus lanatus var. Citroides (Wild melon)

Abstract:

To test the antimicrobial activities of crude chloroform, hexane and ethanol extracts of leaves, stem, fruits and seeds from Citrullus lanatus var. citroides (CL) against bacteria (Escherichia coli, Staphylococcus aureus, Pseudomonas aeruginosa, Bacillus subtilis and Proteus vulgaris) and fungi (Aspergillus nigar and Candida albican). Antimicrobial properties of CL were tested using cup-plate diffusion method and disc diffusion. Analysis of the data revealed that, the chloroform extract of the fruit exhibited the highest antibacterial activity. It showed antibacterial activity against S. aureus: 36 mm, B. subtilis; 38 mm, E. coli; 37 mm, P. valgaris; 23 mm and P. aerguinosa; 19 mm. The ethanolic extract of the fruit pulp and stem showed the highest antifungal activity on C. albican (41 mm). A. nigar was very sensitive to the chloroform extract of the seed (37 mm) and the ethanolic extract of the leaves (37 mm). Results were compared concurrently to standard drugs; clotrimazole and gentamicin. Based on the current findings, it can be concluded that this plant has antimicrobial activity, which is as potent as standard antimicrobial drugs against certain microorganisms.