

Comparative study of antibacterial activity between *Cynodon dactylon* crude and solid phase extraction extracts against selected bacterial pathogens

Abstract

Previous studies have shown *Cynodon dactylon* extracts possess broad spectrum of antibacterial activity against common-known Gram positive and negative bacteria. It is believed that specific extraction procedure can enhance the efficacy of extracting antibacterial compounds in plants, thus influence the biological activity of the extract. The present study compared the antibacterial activity of *C. dactylon* crude and Solid Phase Extraction (SPE) extracts against some common bacterial pathogens using disc diffusion and broth micro-dilution assays. This study also revealed the flush fraction of *C. dactylon* ethanol and ethyl acetate SPE extracts with greater antibacterial activity compared to the plant crude extracts. MIC tests confirmed the greatest antibacterial activity is from flush fraction of *C. dactylon* ethanol SPE extract with MIC values of 10.00-20.00 mgmL⁻¹. Comparative study suggests extraction using SPE to obtain the plant extract can produce greater antibacterial activity in contrast to conventional method of extraction.