

Antibacterial Efficacy and Phytochemical Screening of *Ocimum gratissimum* Leaf Extracts against Some Selected Bacteria Isolated from Stool Samples of Diarrhea Patients

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Abstract

This study investigated the antibacterial activity of Ocimum gratissimum leaf extracts on antibiotic resistant bacteria from stool samples of diarrhea patient attending specialist hospitals in Ondo State, Nigeria. O. gratissimum leaf extracted with acetone, methanol and hot water solvents were assayed for qualitative and quantitative phytochemicals. Bioactive extracts were partially purified using standard chromatographic techniques. The crude and purified acetone extract had inhibitory effect on Escherichia coli (13.00±0.58 and 26.67±0.33 mm) according to CLSI, 2014 standard. The minimum inhibitory concentration (MIC) and minimum bactericidal concentration (MBC) of purified acetone extract were 12.5 and 25 mg/ml respectively. Saponin had the highest quantity (42.50±0.32 mg/ml) on acetone extract while tannin had the lowest (1.29±0.01 mg/ml). O. gratissimum leaf acetone extract could be promising candidate in the treatment of diarrhea infection which is a major concern in paediatric medicine.

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