

Antibacterial and antifungal properties of *Chromolaena odorata* leaf extracts against clinical isolates

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Dry and fresh ethanolic extracts of the leaves of *Chromolaena odorata* were studied for *in vitro* antimicrobial properties by agar well diffusion technique using Mueller-Hinton Agar (MHA) on human pathogenic bacteria: *Staphylococcus aureus* (ATCC 55620), *Escherichia coli* (ATCC 35218), *Pseudomonas aeruginosa* (ATCC 27853), *Acinetobacter baumannii* (ATCC 19606) and *Enterococcus faecalis* (ATCC 29212). The same was also carried out on clinical isolates of fungi: *Trichophyton rubrum*, *T. schoeleinii*, *Microsporum ferrugineum*, *Epidermophyton floccosum* and *T. mentagrophyte* using potato dextrose agar (PDA). The dry ethanolic extract inhibited the growth of *Staphylococcus aureus*, *Escherichia coli*, *Pseudomonas aeruginosa*, *Acinetobacter baumannii*, *Trichophyton rubrum* and *T. schoeleinii*. The most susceptible bacteria was *Escherichia coli*. The fresh ethanolic extract only inhibited the growth of *Staphylococcus aureus* and *T. rubrum*. The minimum inhibitory concentration for all bacteria was 80 mg/mL while for fungi were between 80-100 mg/mL. This result shows that the plant could be a potential source of bioactive substances especially the dry ethanolic extract which has a wider spectrum of activity.

Biography

Haruna Muyideen Titilope was born in 1979. He completed his master's degree in Medical Microbiology at the age of 29 years from University of Lagos, Nigeria. He is a Lecturer (Faculty) at the Department of Medical Laboratory Science, Babcock University, Ilishan Remo, Ogun State, Nigeria. He came into academics in 2009 and has published 7 papers in reputed journals and has been serving as manuscript reviewer.

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