

Phytochemical and Antimicrobial Studies of Root Bark Extracts from *Glossonema boveanum* (Decne.)

Authors : Ahmed Jibrin Uttu, Maimuna Waziri

Abstract : The root bark of *Glossonema boveanum* (Decne), a member of Apocynaceae family, is used by traditional medicine practitioner to treat urinary and respiratory tract infections, bacteremia, typhoid fever, bacillary dysentery, diarrhea and stomach pain. This present study aims to validate the medicinal claims ascribed to the root bark of the plant. Preliminary phytochemical study of the root bark extracts (n-hexane, ethyl acetate, chloroform and methanol extracts) showed the presence of alkaloids, carbohydrates, steroids, triterpenes, cardiac glycosides, saponins, tannins and flavonoids. Antimicrobial study of the extracts showed activities against *Staphylococcus aureus*, *Bacillus subtilis*, *Salmonella typhi*, *Shigella dysenteriae*, *Escherichia coli*, *Enterobacter cloacae*, *Streptococcus agalactiae* and *Candida albicans* while *Micrococcus luteus*, *Pseudomonas aeruginosa* and *Klebsiella Pneumoniae* showed resistance to all the extracts. The inhibitory effect was compared with the standard drug ciprofloxacin and fluconazole. MIC and MBC for both extracts were also determined using the tube dilution method. This study concluded that the root bark of *G. boveanum*, used traditionally as a medicinal plant, has antimicrobial activities against some causative organisms.

Keywords : *Glossonema boveanum* (Decne.), phytochemical, antimicrobial, minimum inhibitory concentration, minimum bactericidal concentration

Conference Title : ICGHOST 2020 : International Conference on Ghost Conference

Conference Location : ghost city, Other

Conference Dates : December 12-13, 2020