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Antimicrobial Efficacy of Medicinal Plant Swertia Chirata

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Complementary and alternative medicine (CAM) is becoming increasingly popular and experienced a high growth all over the world. A medicinal plant, *Swertia chirata*, has been widely use as herbal medicine in Asian countries and some parts of the world. The aim of this study was to evaluate the antibacterial property of *Swertia chirata*. Plants were extracted using ethanol. Disc diffusion technique was used to detect antimicrobial activity. Crude extraction of whole plant showed significant antimicrobial activities against some Gram-positive and Gram-negative bacteria. Test materials at a concentration of 100 µg disc⁻¹ were used to evaluate the antimicrobial activity and 30 µg disc⁻¹ concentration of Kanamycin was used as positive control. Zone of inhibition against *Staphylococcus aureus* and *Escherichia coli* were 10mm and 8mm respectively. Minimum Inhibitory Concentration of the crude extract was determined by serial dilution technique which showed 64 µg/ml for *Staphylococcus aureus* and 128 µg/ml for *Escherichia coli*. Although the results obtained revealed inhibition against *Staphylococcus aureus* & some Gram-positive & negative bacteria, a further study need to be carried out to detect the active compounds of this highly potent plant. Moreover, problems of drug resistance leading to recurrent infections highlight a need to search for new compounds for treatment of microbial infections. Hence, *Swertia chirata* which possesses antimicrobial activity, hope will complement if not replace a standard antimicrobial drugs that will be of benefits to the health of the mankind.

Keywords: Swertia chirata, antibacterial, Complementary & Alternative Medicine (CAM).