ANTIBACTERIAL AND ANTIOXIDANT PROPERTIES OF THE METHANOLIC EXTRACT OF THE LEAVES OF *PEUCEDANUM ZENKERI* (APIACEAE)

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ABSTRACT

*Peucedanum zenkeri* (Apiaceae) is largely used in Cameroon, China, West and Central Africa folk medicine in treatment of influenza and as antitussive, expectorant, antipyretic and stomachic. The antibacterial properties of the methanolic extract from leaves of *Peucedanum zenkeri* were tested against three Gram-positive bacteria and eight Gram-negative bacteria known to be pathogenic of the gastro-intestinal tract using Agar-well diffusion and Broth microdilution methods. Antioxidant activities of the crude extract were investigated by DPPH radical scavenging activity and β-carotene-linoleic acid assays. Moreover, a phytochemical screening of methanolic extract was done. The methanolic extract exhibited antibacterial activities that varied between the bacterial species (ID= 0.00-13.75 mm; MIC= 1562-12500 μg/ml). The activity of the crude extract is however very weak compared to the reference antibiotics (Amoxicillin, Ciprofloxacin and Gentamicin; MIC= 0.125-128 μg/ml). *S. aureus* was the most sensitive (MIC= 1562 μg/ml) while *S. paratyphi A* and *S. paratyphi B* (MIC= 12500 μg/ml) were the least sensitive. In addition, the crude extract showed good antioxidant potential with inhibition values ranging from 17.53-93.39%. These results provide promising baseline information for the potential use of this plant in the treatment of GE and oxidative stress.

Key words: *Peucedanum zenkeri*; Apiaceae; plant extract; antibacterial properties; antioxidant agents.