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In vitro* Antimicrobial Activity of Cameroonian Medicinal Plants on Clinical Isolates of *Helicobacter pylori*: *Ageratum conyzoides

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Helicobacter pylori is a major etiological agent in peptic ulcer and MALT. Its increasing drug resistance presents a problem. In this study, *H. pylori* was isolated from gastric biopsy specimens following standard microbiology procedures. The disk diffusion and agar dilution methods were used to determine the susceptibility of 15 strains to ten methanol plant extracts including *Ageratum conyzoides*, which showed very potent activity on the isolates (80%) [1]. We therefore proceeded to further isolate and characterize the active constituents in *A. conyzoides*. The crude methanolic extracts were fractionated by silica gel and thin layer chromatography (TLC) and 16 fractions were obtained. Fractions 23–30 and 31–36 contained crystals and showed similarity in their TLC profiles; it was assumed that they had the same active components, so they were combined and considered as fractions 23–36. The disk diffusion method was used to determine the susceptibility of the 15 strains to the test fractions. The MIC and MBC for the most active fractions were also determined. All the fractions tested demonstrated antimicrobial activity. However, two of the 16 fractions, 23–36 (between elution with 100%Hex-Hex/EA20%) and 69–83 (eluted with Hex/EA80%) demonstrated potent activities. The lowest MIC and MBC recorded were 0.002mg/mL and 0.016mg/mL respectively. There was a statistically significant difference ($P < 0.05$) in the potency of the fractions on the different bacterial strains tested, both for the MIC and MBC. It is concluded that *A. conyzoides* may contain compounds with therapeutic activity, which may be found in fractions 23–36 and 69–83, for which studies are ongoing.

- [1] Ndip RN, Malange -Tarkang AE, Mbullah S M, Luma HN, Malongue A, Ndip L M, Nyongbela K, Wirmum C, Efange SMN. *In vitro* anti- *Helicobacter pylori* activity of extracts of selected medicinal plants from North West Cameroon. J Ethnopharmacol. 2007; 114: 452–457.
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