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Phytochemistry and antiplasmodial potential from acetogenins derived from two Cameroonian plants: *Polyalthia suaveolens* and *Polyalthia longifolia* (Annonaceae)

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Malaria remains the most dangerous parasitic infection in many tropical and subtropical countries and therefore is a major public health problem concern. In spite of the availability of artemisinin-based combination therapies resistance has been reported. Then, the discovery and development of new antimalarials drugs of natural origin are urgently needed. Our project will aim to investigate the antimalarials properties of plant extract from *Polyalthia suaveolens* and *Polyalthia oliveri* (Annonaceae family). Collected materials will be extracted by maceration in 95% ethanol and partitioned using an organic solvent system in order to obtain acetogenin-enriched extracts (interest extracts). These extracts obtained will be purified to isolate and to characterize the pure coumpounds using colomn chromatography and spectroscopic method. Then the evaluation of antiplasmodial activity in continuous culture against *Plasmodium falciparum* strain resistant to chloriquine and other antimalarial drugs were performed. Active fractions will be assessed for their *in vivo* test in Swiss albino mice against malarial strain parasite (*Plasmodium berghei*) with the classical 4-day suppressive test. Finally the possible potentiation of molecules with current antimalarials drugs will be carried out and cytotoxic effect on human hepatoma cell in culture.

Evaluation of the anti-ulcer activity of a polyherbal formulation in aspirin & pyloric ligature induced gastric ulcers in albino rats

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The aetiology of gastric ulcers is not completely understood and continuous use of anti-ulcer agents leads to many side effects. In this study we evaluated the anti-ulcer efficacy of a polyherbal formulation with potent antioxidant activity in aspirin and pyloric ligature induced gastric ulcers in rats. The efficacy of the polyherbal formulation (composed of the extracts from *Azadirakhta indica, Curcuma longa* and *Zingiber officinalis*) was evaluated in antiulcer activity as seen by the area of gastric lesions, gastric juice volume, gastric *p*H, total acidity and total adherent gastric mucus content. In our study, polyherbal formulation (25 and 50 mg/kg) was more efficacious than ranitidine in reducing ulcer index in both the models. At the highest dose tested (50 mg/kg), polyherbal formulation was comparable to omeprazole in preventing ulcer formation in the pyloric ligature model. polyherbal formulation showed a dose-dependent decrease in gastric juice volume and total acidity in both the models. A dose-dependent increase in gastric *p*H and total adherent gastric mucus was also seen in polyherbal formulation treated groups. The extent of lipid peroxidation was also reduced in the test drug treated groups. These findings suggest the potential for use of polyherbal formulation as an adjuvant in the treatment of gastric ulcer.