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Study of acute oral toxicity and evaluation of the nephroprotective, hepatoprotective and cardioprotective properties of *Gomphrena celosioides*, *Cola nitida* and *Entandrophragma angolense* — three plants of Ivorian traditional medicine

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Gomphrena celosioides, *Cola nitida*, *Entandrophragma angolense* are three plants, regularly used by the Ivorian traditional medicine to treat various diseases. The objective of this study was to evaluate the nephroprotective, hepatoprotective and cardioprotective aqueous and ethanol extracts of these plants. The test of acute oral toxicity indicates that these extracts have LD50 superior to 5000 mg/kg and are practically non-toxic. But nevertheless, at 5000 mg/kg, Pc of *G. celosioides* and *E. angolense* extracts had an impact on the hepatic functionality. The studied extracts have lowered the effects of gentamicin on the kidney, liver CCl₄ and doxorubicin on the heart by significantly decreasing serum concentrations of urea, creatine, Alanine Aminotransferase (ALT), the Aspartate Aminotransferase (AST), gamma-glutamyl transferase, alkaline phosphatase, total bilirubin of Lactate dehydrogenase (LDH), creatine kinase (CK-MB), cholesterols and triglycerides. In addition, they significantly increase serum concentrations of total proteins, HDL cholesterol, and significantly decrease the total protein and urinary albumin microwave. These protective activities have also been materialized by an increase in weight gain. However, the extracts showed much more important properties at a dose 500 mg/kg of Pc with a better cardioprotective activity for *E. angolense* and more interesting nephroprotective activity for *C. nitida*. In addition, *C. nitida* and *E. angolense* showed better hepatoprotective activity.

Biography

Bamba Abou completed his Doctorate at the Université Félix Houphouët-Boigny, Abidjan. He is a Researcher at the Laboratory of Pharmacology of Natural Substances of the Université Félix Houphouët-Boigny. He has published more than five articles in reputed, indexed and peer-reviewed journals.

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