

Sub-Acute Toxicity Studies on Aqueous Leaf Extract of *Acalypha wilkesiana* in Albino Rats

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Abstract : *Acalypha wilkesiana* is a medicinal plant commonly used in most parts of West Africa as a decoction in treating several human diseases. Existing literature on its toxicity is predominantly on the organic extracts in contrast to the routine use of hot aqueous extracts as decoction. The aim of this study was to examine the phytochemical profile and sub-acute toxicity of *A. wilkesiana* leaf extracts in albino rats. Three groups of 8 experimental rats each were administered 300 mg/kg, 600 mg/kg and 1200 mg/kg body weight per day for 14 days while a fourth (control) group took tap-water. On day 15, the rats were sacrificed, and blood collected. Biochemical and hematological parameters were analysed and histopathological examination of liver and kidney were performed. There was significant increase ($p < 0.05$) in the levels of some biochemical parameters (AST, ALT, creatinine, urea) in all the test groups compared to control. Histopathological examination of the liver revealed centrilobular degeneration and necrosis with sinusoidal dilatation as well as polymorphonuclear and mononuclear infiltration, likewise severe glomerular and tubular degeneration and necrosis with hemorrhage in the kidney at all dose levels. The results from this study suggest that aqueous leaf extract of *A. wilkesiana* is hepatotoxic and nephrotoxic at dose levels of 300 mg/kg and above. Therefore, precautionary measures are necessary for home use of the leaf extract of *A. wilkesiana*.

Keywords : acute toxicity, *A. wilkesiana*, aqueous extract, albino rats, biochemical and haematological parameters, histopathological examination

Conference Title : ICT 2015 : International Conference on Toxicology

Conference Location : London, United Kingdom

Conference Dates : February 16-17, 2015