

NPR005: Antitrypanosomal Activity and Effect of Abrus Precatorius (Rosary Peal) Leaf Extract on Haematological Parameters and Antioxidants Enzymes in Trypanosoma Brucei - Infected Mice

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ABSTRACT

This study investigated the effect of methanol extract of *Abrus precatorius* on some biomarker enzymes and haematological parameters in *Trypanosoma brucei* - infected mice. Twenty albino rats were experimentally infected with *Trypanosoma brucei* and were grouped into five (5) groups of four (4) each. Group 1 and 2 were given 0.2 ml normal (ml/kg body weight), and diamminazene aceturate respectively, group 3 to 5 were treated with methanol extract of *Abrus precatorius* at daily doses of 200, 400 and 600 mg/kg for 21 days, respectively. Results showed significant ($p < 0.05$) dose dependent antitrypanosomal activities with prolong survival days of extract treated mice compared with the untreated control. Mice treated with 600 mg/kg bw exhibited complete parasite clearance by day 15 and survived for more than 2 months. The extract at all dose tested (200, 400 and 600 mg/kg bw) significantly ($P < 0.05$) increase the RBC, PCV, MCH, Hb and WBC when compared with the untreated control. The extract significantly ($p < 0.05$) reduced the total serum GST and increased serum SOD activity when compared with the untreated control. The extract increased the liver total proteins and catalase activity and increased the liver SOD activity when compared with untreated control. In conclusion, methanol extract of *Abrus precatorius* exhibited antitrypanosomal activities and ameliorative effect on *T. brucei*-induced oxidative stress and haematological alterations in mice.

Keywords: *Abrus precatorius*, Haematology, Trypanosomiasis, Antioxidants, Biomarker enzymes

NPR006: Comparative Analysis of Proximate Compositions, Phytochemical and Nutritional Contents of Jatropa curcas L Leaves Extract Obtained from Two Different Locations

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ABSTRACT

Jatropha curcas belongs to the family Euphorbiaceae. The study was conducted to determine the comparative proximate composition, phytochemical and nutritional contents of *Jatropha curcas* L. leaf extracts obtained from Yauri and Ibadan. Triplicate determinations were used for the sample's analysis Using Standard Analytical Method. The leaves of *Jatropha curcas* were collected and analyzed for phytochemical and nutritional contents. The results showed that both samples have high concentration of carbohydrates of 82.71 and 81.6% for Yauri and Ibadan, respectively. The results also showed that sample collected from Yauri have higher content of ash (2.48 %), fibre (1.28 %), protein (6.31 %) and carbohydrates (82.71%). However, sample obtained from Ibadan have higher moisture content (5.12 %) and fat (4.61 %) while sample collected from Yauri have higher concentration of saponin (2.6), Phytate (3.3) and flavonoid (2.3). Similarly, sample obtained from Ibadan has higher contents of tannin (2.6) and oxalate (2.4). The samples had equal composition of Alkaloid (1.7). The result also showed that a sample *J. curcas* from Yauri have higher composition of Na (60.43) and Ca (26.11), while sample from Ibadan have higher contents of K (76.35), Fe (44.38), Zn (3.8) and P (5.49). The study concludes that the leaf of *J. curcas* obtained from Yauri and Ibadan have different proximate, phytochemical and nutritional contents.

Keywords: *Jatropha curcas*, Proximate Analysis, nutrition, Leaves and phytochemicals