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ED031

Antivenom Effect of *Sterculia setigera* against *Naja nigricollis* Venom-Induced Albino Rats Mortality

[1]Nwaogu, J., [2]Idris A. K., and *[2]Abdullahi, I.

[1]Department of Biochemistry, Kebbi State University of Science and Technology Aliero

[2]Department of Science Laboratory Technology, Federal Polytechnic, Kaura – Namoda, Zamfara State.

Corresponding Author's Email: ibrahimdauran491@gmail.com; Phone Number: +2348030612815

ABSTRACT

Snake envenomation is a neglected public medical issue in developing countries, with high mortality rate. This study aimed to investigate the anti-snake venom activity of the methanolic root bark extract of *Sterculia setigera* and its fractions against *Naja nigricollis* venom-induced mortality. The crude extract was fractionated based on liquid-liquid fractionating method. The crude extract and its fractions were pre-incubated with minimum lethal dose (LD99) of the venom at 37^{0}C for 1h. Twenty-seven albino rats were allocated into two major groups A and B. Group A was further subdivided into four groups with three rats each designated as A1-A4. Groups A2-A4 received 100, 200 and 300 mg/kg of the extract respectively for seven days orally, before injection of the venom. Group B was further subdivided into five groups of three rats each; designated as B1-B5. Group B3, B4 and B5 received 100mg/kg of the dichloromethane (DCM), ethylacetate (EA) and aqueous methanol (AM) fractions incubated each with LD99 (10 mg/kg) of the venom, while group B2 received only the anti-venom and group B1 received only normal saline. LD99 of thevenom produced 100% death in groups A1 and B1. However, 300mg/kg of extract offered 33.3% protection to rats in group A, but could not protect rats from death. The AM fraction significantly increased the mean survival time of the rats but could not protect the rats from death. The anti- snake venom offered 100% protection to rats in group B2. All together, the results highlight the anti-snake venom potential of *Sterculia setigera*

Keywords: Snake envenomation, *Sterculia setigera, Naja nigricollis,* Anti-snake venom

ED032

Effect of *Ximenia americana* Stem Bark Extract and Fraction on *Salmonella typhi* - Infected Rats

[1]Muhammad, H. L., *[2]Garba, R., [1]Makun, H. A., [3]Abdullah, A. S., [2]Busari, M. B., and [2]Hamzah, R. U.

[1]Africa Centre of Excellence for Mycotoxin and Food Safety, Federal University of Technology, Nigeria.

[2]Department of Biochemistry, Federal University of Technology, Nigeria.

[3]Department of Internal Medicine, Ahmadu Bello University, Nigeria.

*Corresponding Author's E-mail: rahinat.garba@futminna.edu.ng, Phone Number +2348052166759

ABSTRACT

Typhoid/enteric fever remains a major public health problem in developing countries giving rise to intestinal perforation if poorly treated or untreated. The anti-typhoid efficacy and safety of *Ximenia americana* stem bark extracts on the nephrocytes, hepatocytes, and haematological parameters of *Salmonella typhi* infected Wistar albino rats was evaluated. Experimental rats in their respective groups were infected with *S. typhi* while group 1 were uninfected. Group 2 were not treated, group 3 were treated with the standard drug (ciprofloxacin), while groups 4, 5, 6 were treated with (100, 200, 300) mg/kg bodyweight of the methanol extract of *X. Americana* stem bark, and groups 7, 8 and 9 were treated with (100, 200, 300) mg/kg bodyweight of the ethyl-acetate fraction of *X. americana* stem bark for 7 days. *Salmonella* infection led to a significant ($p<0.05$) increase in serum urea, sodium, chloride levels, bilirubin concentration, total white cell count and activities of the liver enzymes as compared to normal and apparently healthy rats. A significant ($p<0.05$) decrease in PCV, haemoglobin concentration, RBC count, serum potassium, total protein and creatinine levels of the infected groups was observed as compared to the normal uninfected group. The administration of both extract and fraction was accompanied by a significant ($p<0.05$) dose-dependent decrease in serum electrolytes and alkaline phosphatase in the treated groups. *X. americana* could be a safe natural alternative therapeutic source for enteric fever.

Keywords: *Ximenia Americana*, *Salmonella typhi*, Enteric fever; Extracts; Experimental rats.