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Comparative effect of *Costus afer* stem juice and ascorbic acid on kerosene induced haematotoxicity in female albino *Wistar* rats

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Comparative effect of *Costus afer* stem juice (CASJ) and ascorbic acid (ASC) on kerosene induced haematotoxicity in female albino *Wistar* rats was assessed in this study. Twenty eight female albino *Wistar* rats, weighing 150 – 180 g were used in the study. The rats were distributed into four groups, with seven rats each. Group 1 served as the control, while group 2 was orally exposed to 2 mg/kg body weight (bwt) of kerosene for 21 days without being treated with CASJ and ASC. Group 3 was orally exposed to 2mg/kg bwt of kerosene and treated with 7.5 mg/kg bwt of CASJ, while group 4 was orally exposed to 2 mg/kg bwt of kerosene and treated with 210 mg/kg bwt of ASC daily for 21 days. At the end of the experimental period, the weights of the animals in each group were taken, the animals sacrificed, and blood samples collected through cardiac puncture for hematological analyses. Hematological parameters were determined using an auto analyzer. The results of this study showed that exposure to kerosene resulted in a significant ($p < 0.05$) reduction in body weight and growth rate, RBC, platelets, Hb, PCV, as well as increase in WBC and some differential cells in female rats. The results of this study indicated that exposure to kerosene induced haematotoxicity in female rats. However, administration of CASJ and ASC to female rats exposed to kerosene produced a comparable significant ($p < 0.05$) protection against kerosene induced haematotoxicity in the rats. It may be concluded that CASJ and ASC possess a comparable protection potential against kerosene induced haematotoxicity in female rats.

Biography

Chinelo Ozojie had a BSc degree in Biochemistry in 2011 from University of Nigeria, Nsukka, Nigeria. She won a National Essay writing competition in 2004, and a Certificate of endorsement for outstanding performance by the Institute of Mathematics, Nigeria. She is presently a MSc research student in University of Calabar, Calabar, Nigeria.

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