The effect of the ethanolic extract of Lagenaria breviflora Robert was evaluated on haematological indices and serum electrolyte levels of Wistar rats. 25 adult rats were randomly but equally divided into 5 groups. The rats in group A (Control) were administered with 0.9% Physiological Saline, while rats in groups B to E were administered with the extract of 1000, 2000, 4000 and 8000 mg per Kg body weight respectively once daily for 14 days according to the acute and chronic toxicities studies conducted. The parameters evaluated were PCV, Hb concentration, MCV, MCH, MCHC values, RBC, WBC, neutrophils and lymphocytes counts. The serum electrolytes included Na+, Cl-, HCO3 -, K+, Ca2+ and HPO4 -.

The extract increased the mean PCV, RBC, WBC, Hb and MCV values of rats in the test groups, while MCH and MCHC decreased. The increase in the mean value of MCV, RBC and PCV coupled with decreased values of MCH and MCHC indicated increased production of reticulocytes (reticulocytosis), which suggest that the extract of the plant is capable of stimulating erythropoiesis. The mean lymphocyte values increased, while mean neutrophils values decreased for most of the test groups. There was evidence of electrolyte imbalance exhibited by significant (P < 0.05) reduction of HCO3 - and Ca2+. This electrolytes imbalance was accompanied with significant (P < 0.05) elevation of BUN in the rats in the test groups, thus strongly incriminating renal injury as possible cause. It was concluded that prolonged administration of extract of L. breviflora elicit electrolyte imbalance and the extract of the plant is not haematoxic, rather, it stimulate erythropoiesis.

Key words: Haematology, serum electrolytes, extract, Lagenaria breviflora, Wistar rats.