COMBINATION THERAPY OF METHANOLIC BARK EXTRACTS OF T. AVICENNIOIDES AND A. LEIOCARPUS AND ITS EFFECT ON KIDNEY AND HAEMATOLOGICAL PARAMETERS IN MICE

AKANBI O.M

Department of Animal and Environmental Biology, Adekunle Ajasin University, Akungba-Akoko, Ondo State, Nigeria

The resistance of Plasmodium species to drugs has necessitated the search for more drugs. Anogeissus leiocarpus and Terminalia avicennioides have been considered traditionally for the treatment of malaria.This study assessed the efficacy of combination therapy of methanolic bark extracts of Anogeissus leiocarpus and Terminalia avicennioides on malaria parasite and its effect on kidneyand haematological parameters in mice infected with Plasmodium berghei.Thirty-six mice were distributed into six groups. The first group was not infected with theparasite(normal control). The second group was infected but not treated (negative control). The thirdgroup was infected and treated with 5.0mg/kgbdwt of combisunate (positive control), while the third, fourth and fifth groups were infected and treated with 100, 200, and 400mg/kgbdwt of combined methanolic bark extracts of T. avicennioides and A. leiocarpus. Treatments were administered for four days. Blood was taken daily from the tail of mice for the assessment of parasitaemia. The animals were sacrificed on the fifth day and the kidney homogenates was collected into plain bottles, whole blood and serum were taken into EDTA and plain bottles respectively.The results showed that the parasite clearance was highest in the group treated with 400mg/kgbdwt and lowest in the group treated with 100mg/kgbdwt. White blood cell, lymphocyte, haemoglobin, red blood cell and MCHC levels were significantly higher in normal control than in other groups. Haemoglobin was significantly reduced in negative control, and the groups treated with 100 and 400mg/kgbdwt when compared with positive control and the group treated with 200mg. The SGPT, SGOT,Potassium and creatinine levels were significantly lower in the normal control than in the other groups.Though the antiplasmodia; activities of combination therapy of the bark extracts of A.leiocarpus and T.avicennioides was highest in the group treated with 400mg but that concentration had serious negative effect on haematology and kidney function of the animal.