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Antioxidant evaluation of *Moringa oleifera* therapy combination in mice with *Plasmodium berghei* malaria

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Studies were carried out to determine the antioxidant evaluation of *Moringa oleiferain* micewith *Plasmodium bergheimalaria*. Twenty-five albino mice (*Musmusculus*) induced intraperitoneally with chloroquine sensitive *Plasmodium bergheistrain* were divided into 5 groups and treated at three concentrations ranging from 400, 200. Positive control was set up with chloroquinediphosphate while negative control was set up with olive oil. The mice models were treated for 72 h. For the aqueous extract, a parasite inhibition rate of 20% was observed at concentration 200 ml/kg and 25% at concentration 400 ml/kg in day 3 after treatment. A 100% inhibition rate was observed for mice treated with 25 mg/kg of standard chloroquinediphosphate after day 3 of treatment while parasitaemia increased from 48 on day 0 to 86 after day 3 for mice treated with olive oil. Superoxide dismutase shows an increase in the mice administered with 200mg/kg body weight of *Moringa oleifera* and a decrease in other groups compared with the control group. Melondialdehyde also shows an increase in the mice administered with 200mg/kg body weight of *Moringa oleifera* and a decrease in other groups compared with the control group. Glutathione peroxide and reduced glutathione decreased in all the groups except for the chloroquine treated group compared with the control group. Group 6 (negative control) showed a non-significant difference ($p>0.05$) in serum urea compared to group E (positive control) and other groups. Alanine aminotransferase (ALT) also, significantly increased ($p<0.05$) in group E (positive control) and group B (200mg/kg body weight of the extract when compared to group 6 (negative control). Group 6 (negative control) showed no significant difference ($p>0.05$) in aspartate aminotransferase (AST) compared to group E (positive control) and other groups. Alkaline phosphatase (ALP) activity of mice significantly increased ($p<0.05$) in group E (positive control) and group A (400mg/kg body weight of the extract) compared to group 6 (negative control) and other groups.

Biography

Odunlade A K completed his PhD in Animal Biotechnology from Federal University of Agricultural, Abeokuta Ogun State, Nigeria. He is the Head of section of Environmental Biology Unit of the Department of Biological Science, Yaba College of Technology, Yaba Lagos, Nigeria. His areas of specialization are in Animal biotechnology, Reproductive Genetics and Environmental management. He has attended both local and international conference in his area of specialization, also he has published in some reputable journals of learning both locally and internationally. He has attended series of Workshop on Animal Biotechnology both locally and internationally .He has supervised a lot of student's projects and seminar and Co-supervisors. He is a member of Biotechnology society of Nigeria, Genetics society of Nigeria and Member of international Research and Development institute. He has also been an external examiner to some institution of higher learning and paper reviewer.

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