

The Efficacy of *Andrographis paniculata* and *Chromolaena odorata* Plant Extract against Malaria Parasite

Authors : Funmilola O. Omoya, Abdul O. Momoh

Abstract : Malaria constitutes one of the major health problems in Nigeria. One of the reasons attributed for the upsurge was the development of resistance of *Plasmodium falciparum* and the emergence of multi-resistant strains of the parasite to anti-malaria drugs. A continued search for other effective, safe and cheap plant-based anti-malaria agents thus becomes imperative in the face of these difficulties. The objective of this study is therefore to evaluate the in vivo anti-malarial efficacy of ethanolic extracts of *Chromolaena odorata* and *Andrographis paniculata* leaves. The two plants were evaluated for their anti-malaria efficacy in vivo in a 4-day curative test assay against *Plasmodium berghei* strain in mice. The group treated with 500mg/ml dose of ethanolic extract of *A. paniculata* plant showed parasite suppression with increase in Packed Cell Volume (PCV) value except day 3 which showed a slight decrease in PCV value. During the 4-day curative test, an increase in the PCV values, weight measurement and zero count of *Plasmodium berghei* parasite values was recorded after day 3 of drug administration. These results obtained in group treated with *A. paniculata* extract showed anti-malarial efficacy with higher mortality rate in parasitaemia count when compared with *Chromolaena odorata* group. These results justify the use of ethanolic extracts of *A. paniculata* plant as medicinal herb used in folklore medicine in the treatment of malaria.

Keywords : anti-malaria, curative, plant-based anti-malaria agents, biology

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