In vitro Anti-plasmodial Activity of Rubia Cordifolia, Harriziona Abyssinica, Leucas calostachys Olive and Sanchus schweinfurthii Medicinal Plants.

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Abstract

Plasmodium falciparum is becoming increasingly resistant to conventional antimalaria drugs. Rapid increase of parasite resistant strains, resistance of the vector to insecticides and the difficulty in creating efficient vaccines has led to an urgent need for new anti-malarial drugs. To determine anti-plasmodial activity of Rubia cordifolia, Harriziona abyssinica, Sachus schweinfurthii and Leucas calostachys Olive plants. Aqueous and methanolic crude extracts were prepared from R. cordifolia, H. abyssinica, S. schweinurthii and L. calostachys plants. The extracts were then prepared into appropriate concentrations for anti-plasmodial activities. In vitro anti-plasmodial activities of herbal drugs were analysed according to the methods of Tona et al., 1999. Methanolic extracts were more efficacious than aqueous extracts. S. schweinfurthii and L. calostachys had IC50 (Inhibition Concentration) of between 1.10μg/ml and 3.45μg/ml and had highest parasite inhibition ranging between 3.5% and 5.2%. R. cardifolia and H. abyssinica had IC50 of between 1.5μg/ml and 3.0μg/ml and it had moderate parasitaemia ranging between 5.20% and 7.22%. Vernonia lasiopa and Erythrina abysinnica had insufficient yields. S. schweinfurthii and L. calostachys had the highest parasite inhibition while R. cardifolia and H. abyssinica had moderate inhibition.

Keywords: Anti-plasmodial, extracts, lethal dose, parasites, IC50.


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