Abstract

Resistance of Plasmodium species to therapeutic agents and the resistance of the vector mosquitoes to insecticides prove that malaria is still the most economically important tropical disease. Statistics show that about 300 million people are infected with malaria parasite every year. In Africa alone about 2 million people die annually, most of them are children below 5 years of age. With no vaccine likely to be available in the near future, the need for new agents to combat resistant P. falciparum is becoming increasingly urgent. Plants continue to be used in the treatment of malaria, either for their anti-parasitic activity or because they possess, or are believed to possess some activities with therapeutic agents for a patient with malaria. An ethnomedical survey of Coast, Eastern and Nyanza Provinces of Kenya revealed the use of 197 plant species for malaria management by the local communities. Different extracts of fifty plants used by these communities were evaluated for the in vitro antiplasmodial, in vivo antimalarial, cytotoxicity and animal toxicity activities. Phytochemical screening of six of these plants led to the isolation of thirty-six compounds (terpenoids, steroids, flavonoids, naphthalene derivatives and napthaquinones). Some of these compounds demonstrated interesting bioassay results and suggest that there is potential to generate leads with enhanced antimalarial activity, reduced cytotoxicity and improved bioavailability.