In vivo Ant malarial activity, Toxicity and Photochemical Screening of Selected Ant malarial Plants

Musila, M F; Dossaji, S F; Nguta, J M; Lukhoba, C W; Munyao, J M
URI: www.elsevier.com/locate/jep
http://erepository.uonbi.ac.ke:8080/xmlui/handle/123456789/13987
Date: 2013

Abstract

Organic and water extracts of four medicinal plants used for the treatment of malaria in traditional health systems of Msambweni people in Kenya were tested for antimalarial activity against Plasmodium berghei and brine shrimp lethality. They were also screened for their major phytochemical constituents. The aqueous extract of the stem bark of Adansonia digitata exhibited highest chemosuppression of parasitaemia,>60% in a murine model of Plasmodium berghei infected mice. Aqueous and organic extracts of Launaea cornuta and Zanthoxylum chalybeum were toxic to the brine shrimp (LD50<1000 µg/ml) while aqueous and organic extracts of A. digitata and aqueous extracts of Canthium glaucum were not toxic to brine shrimp (LD50>1000 µg/ml). Phytochemical screening revealed the presence of alkaloids and flavonoids in all the crude extracts of the selected plant species studied. Sesquiterpene lactones and saponis were present in organic extracts but absent in the aqueous extracts of A. digitata, C.glaucum, L.cornuta and Z.chalybeum. The results showed that the crude extracts of A.digitata and C. glaucum demonstrated promising antimalarial activity and there is potential for isolation of lead compounds from their extracts.