Antimalarial activity of Ajuga remota Benth (Labiatae) and Caesalpinia volkensii Harms (Caesalpiniaceae): in vitro confirmation of ethnopharmacological use.

Abstract:

Field trips to herbalists' practices in an area about 200 miles around Nairobi (Kenya) enabled us to make a list of medicinal plant species preferentially used to treat malaria. Ajuga remota and Caesalpinia volkensii were further investigated as being the most frequently used species. Aqueous decoctions, ethanol macerates, and petroleum ether, methanol and water Soxhlet extracts of these plants were further tested for their in vitro antimalarial properties in a chloroquine sensitive (FCA/20GHA) and resistant (W2) strain of Plasmodium falciparum. The activity was assessed by the parasite lactate dehydrogenase (pLDH) assay method. There was a concentration-dependent inhibition by the vegetal extracts of both plants. The IC(50) of the most active A. remota extract (ethanol macerate) was 55 and 57 microg/ml against FCA/20GHA and W2, respectively. For C. volkensii, it was the Soxhlet-water extract which was most active against FCA/20GHA with an IC(50) of 404 microg/ml while the petroleum ether extract exhibited the most activity against W2 with an IC(50) of 250 microg/ml. Further phytochemical work is being done in order to identify the active principles.