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Anti-plasmodial activity of the extracts of some Kenyan medicinal plants.

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Abstract

ETHNOPHARMACOLOGICAL RELEVANCE:

The spread of drug resistant Plasmodium falciparum strains necessitates search for alternative newer drugs for use against malaria. Medicinal plants used traditionally in preparation of herbal medicines for malaria are potential source of new anti-malarial drugs.

AIM OF THE STUDY:

To identify the anti-plasmodial potential of twelve plants used in preparing herbal remedies for malaria in Kilifi and Tharaka districts of Kenya.

MATERIALS AND METHODS:

Twelve plants used traditionally for anti-malarial therapy in Kilifi and Tharaka districts were extracted with water/methanol yielding twenty-three extracts. The extracts were tested against chloroquine sensitive (NF54) and resistant (ENT30) P. falciparum strains in vitro using (3)Hypoxanthine assay.

RESULTS:

Seven (30%) extracts showed activity against P. falciparum with IC(50) values below 20 microg/ml. The remaining 16 extracts showed low or no activity. The most active extracts were from Zanthoxylum chalybeum (Rutaceae) with an IC(50) value of 3.65 microg/ml, Cyperus articulatus (Cyperaceae) with 4.84mug/ml, and Cissampelos pareira (Menispermaceae) with 5.85 microg/ml.

CONCLUSIONS:

This study revealed plants, that are potential sources of anti-malarial compounds. Anti-plasmodial activities of extracts of T. simplicifolia, C. pareira, and C. articulatus are reported for the first time.

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