n vitro antimalarial activity of extracts of Albizia gummifera, Aspilia mossambicensis, Melia azedarach and Azadirachta indica against Plasmodium falciparum.

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Abstract:

Since chemotherapy is presently the primary strategy of malaria control in the world, and some malaria parasites are developing resistance to the commonly used antimalarial drugs, new antimalarial compounds are required. Therefore, it is important to test antimalarial activities of medicinal plant extracts which most herbalists claim to cure malaria. We evaluated the antimalarial activities of extracts of Albizia gummiffera, Aspilia mossambicensis, Melia azedar and Azadirahchta indica against laboratory adapted isolates of Plasmodium falciparum using an in vitro radioisotopic uptake technique. Chloroquine was used as a reference antimalarial drug. Al. gummifera had the highest antimalarial activity (mean fifty percent inhibitory concentration {IC(50)S} in ug/ml of test culture =3.5 +1.6SD, n=3) followed by As. mossambicensis (mean IC(50)=29.3+11.8SD, n=4) and Me. Azedarach (mean IC(50) =299.7+202.0SD, n=4). And lastly Az. Indica (mean IC(50)=349.9+213.1 SD, n=4). The antimalarial activities of the reference drug, chloroquine, was far much higher (mean IC(50)=0.065+0.057SD, n=)4). These findings show that Al. gummifera and As. mossambicensis plant extracts have potent antimalarial compounds. Phytochemical analyses should be done on these two plants to isolate the compound(s) containing he active principles(s).