Antimalarial Ethnobotany: In Vitro Antiplasmodial Activity of Seven Plants Identified in the Nigerian Middle Belt

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Abstract:

Seven methanol extracts of seven plants from seven plant families were screened for antimalarial properties. The plants were identified and selected from Gboko and Kastina-Ala local government areas in the Tivland ethnobotany in the Middle Belt Zone of Nigeria. Methanol plant extracts were evaluated for in vitro antimalarial properties using the lactate dehydrogenase technique, with a multiresistant strain of Plasmodium falciparum K1. Quantification of activity was by estimation of the concentration of extracts that inhibited 50% growth of parasite (IC 50) in µg/ml. Of the seven plants screened, Erythrina senegalensis DC (Leguminosae), Pericopsis elata Harms (Papilionaceae), and Bridelia micrantha Benth (Fabaceae) had IC 50 values of 99.7, 124.8, and 158.7?µg/ml, respectively. Nauclea latifolia SM (Rubiaceae) extract exhibited the least activity in the assay with an IC 50 value of 478.9?µg/ml.

Keywords: Antiplasmodial activity; ethnobotany; Middle Belt; Nigeria; phytomedicine

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