Abstract

Background: A bio-diverse region such as Nigeria is a promising source of novel anti-malarial lead compounds that is still relatively unexplored. Hence, we carried out an ethnobotanical survey and of the plants used for the treatment of malaria in South-West Nigeria and phytochemical screening of selected promising plants was investigated.

Method: A semi-structured questionnaire was used to collect information from indigenous people of the South-West Nigeria (Figure 1). The plant samples were authenticated at the Forestry Research Institute of Nigeria. The plants identified as single-used and newly-identified antimalarial herbs were screened for the presence of various phytochemicals quantitatively.

Results: Of the plants surveyed, Persea americana and Ludwigia peruviana were identified, for the first time, to be used in the traditional treatment of malaria. Alstonia congensis, Allamanda cathartica, Axonopus compressus, Dacryodes edulis, Ficus exasperate, Bixa orellana, Cymbopogon citratus and Momordica charantia were said to be used singly in the traditional herbal therapy of malaria. The phytochemical screening showed the presence of alkaloids, tannins, saponins, flavonoids, steroids, phenols and reducing sugars (Table 1). Cardiac glycosides were found only in F. exasperate, L. peruviana and M. charantia while terpenoids were identified in B. orellana, F. exasperate, L. peruviana, A. compressus, C. citratus and A. cathartica.

Conclusion: The identification of these phytochemicals is a step further in validating the traditional claims of the anti-malarial properties of these herbs.