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*Lophira lanceolata*act as an antioxidant agent

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A small to medium-sized deciduous tree, *Lophira lanceolata* can reach a height of 16 m. In the sub-Savannah zone, it is widely dispersed. In Nigeria, an infusion of young *L. lanceolata* twigs is used to treat fever, and respiratory issues, and to ease the grip of dysentery. The methanol leaf extract of *L. lanceolata* has been shown to have anti-plasmodial and antioxidant properties. Human onchocerciasis, which is brought on by Caenorhabditis elegans, is treated using the plant by traditional healers in Cameroon. The presence of polyphenolic substances including flavonoids and phenols was revealed by a qualitative phytochemical examination of the ethanol extract of L. lanceolata leaves. In this investigation, the total phenolics and flavonoids as well as an in vitro antioxidant assay of the solvent fractions are to be determined.

Sigma Aldrich provided methanol, ethyl acetate, and n-hexane (Germany). Loba Chemie provided the Folin-Ciocalteu phenol reagent (India). Ascorbic acid, potassium ferric cyanide, and ferric chloride were purchased from JHD (China), whereas hydrogen peroxide was purchased from BDH (England). In Nigeria's Kogi State, fresh Lophira lanceolata leaves were gathered. The 500 g of air-dried L. lanceolata leaf were macerated with 2.5 L of methanol and extracted over 48 hrs while stirring. The fractions were heated in 5 mL of distilled water for a total of 0.50 g before being filtered. The calibration curve was used to calculate the total phenolic content, which was then represented as milligrams of gallic acid equivalent (GAE) per gram of the fractions. All experiment was performed in triplicates and data were reported as mean±standard deviation.

The use of L. lanceolata in traditional medicine for the treatment of rheumatism and inflammation has been explained by the presence of polyphenolic compounds in the plant. Inflammatory illnesses have been linked to oxidative stress. The solvent fractions of L. lanceolata have in vitro antioxidant capabilities, as demonstrated by the current investigation, and this is a quality. Thus, a new theory on isolation and characterization of the bioactive principles responsible for this activity may be arrived at.

JOURNAL REFERENCE

Onyeto, C.A., M.N. Ofokansi and M.O. Agbo, 2021. Total phenolics, flavonoids and in vitro antioxidant properties of Lophira lanceolata TIEGH. Res. J. Med. Plants, 15: 29-35.

KEYWORDS

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