Antioxidant and free radical scavenging activity of methanolic extract of eupatorium triplinerve vahl.

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ABSTRACT

Plants synthesise and preserve a variety of biochemical products, many of which are extractable and used as chemical feed stocks or as raw material for various scientific investigations and industrial utilization. Many of the industrially and commercially used pharmaceuticals are products of secondary metabolism in microbial or plant systems. Eupatorium triplinerve Vahl. is an erect annual herb, grows up to 90 cm in height. Leaves simple, opposite, lanceolate, acuminate, glabrous, subsessile; flowers light blue, tubular coryms; fruits 5 sided truncated. The plant shows various medicinal properties against diseases viz. hemorrhage, hemoptysis, menorrhagia, wounds, edema, ulcers, stomatitis, cardiac debility, skin diseases, poison bites, cough, asthma, bronchitis and general debility etc. An attempt has been made to explore the free radical scavenging property of the leaf extract of the plant and isolate a novel compound responsible for it. The methanol extract of the Eupatorium triplinerve Vahl was assessed for antioxidant activity using a series of well-established assays such as In vitro DPPH radical scavenging activity, NO and the H2O2 scavenging and FRAP. The phytochemical analysis with different extraction solvents viz. methanol, petroleum ether and water produce significant findings. The total phenolic and flavonoid contents were estimated. The various antioxidant activities were compared with standard antioxidants such as BHT, Ascorbic acid. Since the ROS are the serious threat and produces ailments such as cancer; further studies are going on to observe cytotoxicity of the plant extract on the cancer line cell. The antioxidant property of the extract of E. triplinerve as observed in the present study might be useful for the development of newer and more potent antioxidants. The present abstract of E. triplinerve Vahl is an attempt to provide a direction for further research.

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