

Free radical –scavenging activity of leaves extract of *Euphorbia hirta* Linn

Asha S

Department of Biochemistry, D.K.M. College for Women, Sainathapuram, Vellore-632001, India.

Corresponding author email: asha.sivaji@gmail.com

From National Conference on Natural Products as therapeutics, Medical Microbiology, Nanobiology and System biology: Current Scenario & Emerging Trends, 'NATCON-2014'.

Post Graduate & Research Departments of Biochemistry, Microbiology, Biotechnology and Bioinformatics, Mohamed Sathak College of Arts & Science, Sholinganallur, Chennai-600119, India.

18-19 September 2014.

American J of Bio-pharm Biochem and Life Sci 2014 September, Vol. 4 (Suppl 1): P 23

ABSTRACT

Euphorbia hirta Linn, a small herb, belongs to family euphorbiaceae, distributed throughout hotter part of India, often found along roadsides. *Euphorbia hirta* is an important plant of Indian ayurvedic system of medicine which is used in the treatment of respiratory diseases, gastrointestinal disorders, wound healing, pulmonary disorders, urinogenital disorders, tumors, lactation in women etc. The plant also has anti-inflammatory, anti-tumour, anti-diabetic, anti-allergic, analgesic, anti-anaphylactic, anti-oxytic, sedative, anti-diarrhoeal, and burn wound healing property. The aim of the study is to found out the phytochemical composition, quantitative analysis of three different extracts (aqueous, ethanol and methanol) of *Euphorbia hirta* from Vellore district and to search for antioxidant activity. Sample of leaves extract from *Euphorbia hirta* were tested for phytochemical screening, total phenol content, flavonoid content. The phytochemical analysis was conducted using standard procedures. Total phenolic contents of the extracts were determined using the Folin-Coicalteu reagent method whereas total flavonoids contents were determined by the aluminium Chloride method. Antioxidant activity of different extracts was determined using the DPPH radical scavenging activity and hydroxyl radical scavenging assay. The chemical constituents of the three extracts of the plant were relatively similar in the presence of tannins, alkaloids, steroids, saponins, flavonoids and glycosides. The ethanol extract showed a high total phenolic and flavonoid contents, followed by methanol and aqueous extract. The ethanol extract of the leaves of *E.hirta* showed potent in vitro antioxidant activities. These results demonstrated that ethanol extracts of *Euphorbia hirta* leaves have excellent antioxidant activities and thus serves as a source for natural health products.