

EVALUATION OF ANTI OXIDANTACTIVITY OF FLOWER EXTRACTS OF *Parthenium hysterophorus*

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ABSTRACT:

Synthetic drugs are potentially toxic and are not free from side effects on the host. Therefore an attempt has been made to study the antioxidant activity of plants. As plants and plant-based drugs are less toxic and have acceptable side effects, hence in the present study the crude extracts of leaf of *Parthenium hysterophorus* L were selected to study antioxidant activity. The research works which were carried out during the past were mainly based on the control and elimination of this weed due to its noxious effect. In the present work the ethanolic flower extract was extracted by using soxhlet apparatus. Phytochemical screening was carried out qualitatively by color reactions with different reagents. The Phytochemical screening revealed the presence of flavonoids, alkaloids, glycosides, Terpenoids, tannins, saponins, cardiac glycosides and carbohydrates. The antioxidant scavenging activity of this flower extract was determined by applying two different assay methods: (1) DPPH (1, 1-diphenyl-2-picryl hydrazyl) free radical method. (2) Hydrogen peroxide assay. The ethanolic extract showed the good antioxidant activity with IC₅₀ value of 97.2 µg/ml in DPPH method and with IC₅₀ value of 57.2 µg/ml in Hydrogen peroxide assay method. This study can be basis for the further research to find out more detail information regarding the relationship between antioxidant activity and other quantitative phytochemical content which may help to highlight the chemicals which are responsible for this activity.

Keywords: *Parthenium hysterophorus*, antioxidant activity, DPPH free radical scavenging method, Hydrogen peroxide assay method.

