



Studies on quantitative estimation and antioxidant activity of *Tridax procumbens* L.

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Abstract

India has got a rich biodiversity of medicinal plants which include over 2000 species. Plants are important eternal source of medicine for human health welfare. *Tridax procumbens* L. is employed as indigenous medicine without side effects. Hence it is a valuable herbal drug yielding plant. *Tridax procumbens* L. native of tropical America, has been reported from temperate, subtropical and tropical regions of the world found throughout India as a trailing herbaceous weed having great medicinal value. The present study has been carried by exploring total phenolic content, total flavonoid content and DPPH (Radical scavenging activity). These investigations have been under taken using the leaves of *Tridax procumbens* L. seasonal studies have also been considered for establishing these contents. Hopefully good results have been obtained during these studies which have been elaborately discussed in this paper.

Keywords - *Tridax procumbens* L., total phenolics, total flavonoids, 2,2-diphenyl-1-picrylhydrazyl (DPPH) assay seasonal study.

INTRODUCTION

Plants constitute a vital component of the biodiversity as they play a key role in maintaining earth's environmental equilibrium and ecosystem stability. "Herbal medicine is known to be the oldest form of healing. It originated from ancient Greece as far back as 1600BC" (Baker, 1970). "Ethnobotanical information from India estimates that more than 6000 higher plant species forming about 40 % of the higher plant diversity are used in its codified and folk healthcare traditions" (Ved and Goraya, 2007). In India, Ayurvedic system of medicine has existed for over four thousand years.

"Nearly 80% of the world's population relies on traditional medicines for primary health care, most of which involve the use of plant extracts" (Sandhya et.al, 2006). "In India, almost 95% of the

prescriptions were plant based in the traditional systems of Unani, Ayurveda, Homeopathy and Siddha. From ancient literature it is evidence that the various parts of the plants were used in Siddha, Ayurveda and Unani medicines for the treatment of diseases of human being" (Satyavati et.al, 1987).

In modern society herbal drugs are gaining importance due to the undesirable side effects of allopathic drugs and high cost. Medicinal plants contain important natural antioxidants traditionally used as medicines for thousands of years which are used in herbal preparations of Ayurveda. It is an important component of Bhringraj an Ayurvedic preparation. "Several secondary metabolites were isolated from the plants which are used as antimicrobial agents. Alkaloids, tannins, flavonoids and phenolic compounds are most important bioactive components present in plants" (Hill, 1952).

"Phytochemicals (secondary plant metabolites) present in plants have been extensively investigated as source of medical agents" (Prince and Prabakaran, 2011). "*Tridax procumbens* L. has many medicinal properties, such as immunomodulatory, antidiabetic, antihepatotoxic, antiviral, antioxidant, antibiotic efficacies, wound healing, insecticidal, parasiticidal, anti-inflammatory activity, prevention of bleeding, bronchial catarrh, diarrhea, dysentery, etc.," (Jain Ankita et.al 2012). It is known as button in English, jayanti Veda in Sanskrit, Ghamra in Hindi and Dagadipala in Marathi.

MATERIAL AND METHOD

Plant material

To study seasonal variation in *Tridax procumbens* L. authenticated by Botanical Survey of India (BSI) Pune, fresh leaves had been used.