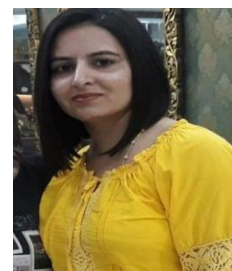


Total phenolics, flavonoids and antioxidant capacity of herbal extracts of Giloy (*Tinospora cordifolia*)

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Abstract

Tinospora cordifolia (Willd.) Miers ex Hook. & Thoms. which belongs to Menispermaceae family is a large, deciduous, climbing shrub found throughout India. It is known as Giloy (in Hindi) and Moonseed plant (in English). It is very important medicinal plant and rich source of antioxidants. Its antioxidant capacity is ascribed due to presence of phenolics, flavonoids, vitamins and secondary metabolites. Free radicals or reactive oxygen species such as hydroxyl radical, superoxide anion radical, hydrogen peroxides formed in our body as a result of biological oxidation. Use of antioxidants in our diet protect against free radicals by scavenging them. Hence, there is an increasing interest to study amount of total phenolics, flavonoids and total antioxidant capacity in herbal extracts of medicinal plants. Herbal extracts in various forms like infusion, decoction, and strong decoction are commonly used since ancient time for medicinal effects. Cold infusion of Giloy prepared using stem is given in chronic conditions of fever. The juice extract from the stem of Giloy is highly effective for treatment of gout as it helps to neutralise the increased uric acid levels in the body. Strong decoction of Giloy with basil leaves offer resistance against swine-flu. Herbal extracts of Giloy viz. infusion (by dipping dried powder of Giloy stem in boiling water for 5 min & 10 min), decoction (by boiling dried powder of Giloy stem for 30 min) and strong decoction (by boiling dried powder of Giloy stem for 1.30 hr.) were prepared and amount of total phenolics, flavonoids and free radical scavenging activity were evaluated by standard methods. The appreciable levels of phenols, flavonoids and antioxidant capacity in Giloy stem give scientific evidence to the traditional medicinal uses of Giloy stem, highlighting its importance as good source of antioxidants.

Biography

Promila is research scholar in the Dept. of Chemistry, CCS HAU (Hisar), Haryana, India. She is having over 15 publications on medicinal plants. She is meritorious student throughout her study and excelled in many exams. Currently she is availing UGC JRF in Chemical Sciences for her research work.



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