



A Review on Giloy: The Immunity Booster Herb

Kanica Chauhan

Assistant Professor, Department of Forest Products & Utilization, College of Horticulture & Forestry, Jhalawar, Agriculture University, Kota (Rajasthan)

E-mail: kanicachauhan@gmail.com

Tinospora Cordifolia is a climbing shrub belongs to family Menispermaceae. It is commonly known as Guduchi, Giloye, Amrita, Guduchi, Gurach, Tinospora. It is a large, glabrous deciduous climbing shrub. The stems are rather succulent with long filiform fleshy aerial roots form the branches. The bark is gray brown and watery. The leaves are membranous and cordate. The flowers are usually small and greenish yellow. This herb is found throughout tropical asia ascending to a height of 300 mts. The plant occurs throughout tropical regions of India extending from Kumaon to Assam and Myanmar, Bihar, Konkan to Sri Lanka. It grows well in almost any type of soils and under varying climatic conditions. The plant is cultivated by stem cutting in the month of May-June. It requires some support preferably Neem and Mango trees, such plants are supposed to possess better medicinal values. Periodical hoeing is done, both in the nursery and field as per requirement. The medicinal plants have to be grown without chemical fertilizers and use of pesticides. Organic manures like, Farm Yard Manure (FYM), Vermi-Compost, Green Manure etc. may be used as per requirement of the species. To prevent diseases, bio-pesticides could be prepared (either single or mixture) from Neem (kernel, seeds & leaves), Chitrakmool, Dhatura, Cow's urine etc. Mature plants are collected, cut into small pieces and dried in shade. It is an important drug and is used in ayurveda form for different preparations like Satva, Ghrita, Tail, Swaras etc. Also, as one of the important ingredients in many other formulations used for treating various diseases. In clinical practice it is mainly prescribed for diseases like Jwara, Shwetapradara, Mandagani, Prameha, Daurbalya, Kamla, etc. Its Ras is Tikta, Veerya is Ushna and Vipaka is Madhura. It is considered the best drug in terms of availability, economy, ease of administration, etc. and further, at the dose levels employed clinically it is well tolerated. In Ayurveda, Giloy is one of the most essential herbs. It is also known that Giloy is efficient in pacifying tri-doshas i.e. Vata, Pitta and Kapha.

Chemical Constituents and Utilization:



Leaf and Stem of *Tinospora cordifolia*



Stem and Drupe of *Tinospora cordifolia*

The plant mainly contains alkaloids, glycosides, steroids, sesquiterpenoid, aliphatic compound, essential oils, mixture of fatty acids and polysaccharides. The alkaloids include berberine, bitter gilonin, non-glycoside gilonin gilosterol. The major phytoconstituent in *Tinospora*



cordifolia include tinosporine, tinosporide, tinosporaside, cordifolide, cordifol, heptacosanol, clerodane furano diterpene, diterpenoid furanolactone tinosporidine, columbin and b-sitosterol. Berberine, Palmatine, Tembatarine, Magniflorine, Choline, and Tinosporin are reported from its stem. There are various active constituents of giloy plant obtained from various parts of plant like leaves, stems, roots etc. Giloye stem is renowned in Ayurvedic therapeutics for its usefulness in the treatment of Jwara (Fever) or as anti-pyretic. The plant shows hypoglycemic effect, and is used as oral anti-diabetic synthetic drugs in the management of diabetes partially.

S. No.	Active Component	Compounds	Source	Uses
1.	Alkaloids	Berberine, Choline, Palmatine, Tembatarine, Magniflorine, Tinosporin, Isocolumbin	Stem, Root	Anticancer, Antiviral infections, Neurological Disorder and Anti-diabetic
2.	Glycosides	Tinocordiside, Cordioside	Stem	Treat Neurological Disorder like Parkinsons
3.	Diterpenoid	Furanolactone	Whole plant	Vasorelaxants, Antiinflammatory, Antimicrobial Antihypertensive, Antiviral
4.	Steroids	Beta-Sitosterol	Stem, Aerial parts	Induce Osteoporosis in early inflammatory arthritis
5.	Aliphatic compound	Octacosanol	Whole plant	Anti-inflammatory
6.	Others	Giloin, Tinosporic acid	Root	Used to treat anxiety, Protease inhibitors for HIV

The Giloye is also used to modify the role of various chemical mediators of inflammation like histamine and 5 HT during the initial phase of inflammation. Hence it is proved that classically prepared Giloye produced significant anti-inflammatory activity. Giloye, one among the Medya Rasayan when consumed regularly is life promoting, disease alleviating, promoter of strength, Agni, complexion, voice and are intellect promoting. On regular consumption with proper quantity one attains longevity, memory, intelligence, freedom from illness, youthfulness, excellence of lustre, complexion and voice, optimum strength of physique and sense organs, perfection in deliberation, respectability and brilliance. Giloy is used to improve or boost immunity". It contains number of antioxidants which fight free-radicals, keep your cells healthy and get rid of diseases. Giloy helps to remove toxins and purifies blood, fights against bacteria. Giloy is very beneficial in improving digestion and treating bowel related issues. Giloy contains anti-inflammatory and anti-arthritic properties that help treat arthritis and its several symptoms. For joint pain, the powder from giloy stem. It can be used along with ginger to treat rheumatoid arthritis. In several parts of India, Giloy plant is helps to boost up vision clarity. For this, boil giloy powder in water, let it cool down and apply over the eyelids. This plant contains anti-aging properties that help reduce dark spots, pimples, fine lines and wrinkles. It provides flawless, glowing skin of an individual.



Tinospora cordifolia

Conclusion:

Giloy is an abundant source of antioxidants, which helps in removing toxins, as blood purifier, fights against bacteria that cause various diseases and combats liver as well as urinary tract infections. Giloy being anti-pyretic in nature reduces the symptoms of several life threatening diseases like Dengue, Swine Flu and Malaria as well. The plant is reported to have active compounds in the form of alkaloids, glycosides, lactones and steroids representing the diverse versatility of the plant. In Ayurveda, it has a special position as in Sanskrit, it is called as Amrita or Amrutha which means “root of immortality” due to its abundant medicinal properties. Diversity of phytochemicals in Giloy has made its utilization in various medical conditions like: antiosteoporetic, hepatoprotective, immunomodulatory, antihyperglycemic, anti-tumor, anti-HIV properties. Giloy contains anti-inflammatory and anti-arthritis properties that help treat arthritis and its several symptoms. It can be used along with ginger to treat rheumatoid arthritis. In several parts of India, Giloy is applied to the eyes as it helps boost vision clarity. Giloy contains anti-aging properties that help reduce dark spots, pimples, fine lines and wrinkles. This is really a miraculous herb having the choice to be used in each and every ailment. But, Giloy has yet not been approved by the Federal Drug Administration, as the consumption of plant without medical supervision may produce side effects such as constipation. Therefore, further study is required along with the clinical trials to prove the benefits of this herb.