International Journal of Pharmacognosy and Pharmaceutical Sciences

ISSN Print: 2706-7009
ISSN Online: 2706-7017
IJPPS 2022; 4(1): 86-86
www.pharmacognosyjournal.net
Received: 08-12-2021
Accepted: 04-01-2022

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Understanding the importance of giloy in present scenario

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DOI: https://dx.doi.org/10.33545/27067009.2022.v4.i1a.106

Abstract
Giloy (*Tinospora cordifolia*) is a plant medicine which is widely used in Unani system of medicine (USM) for various therapeutic purposes. It has antipyretic, analgesic, anti- inflammatory purpose and anti-diabetic potential. This is a review paper based on published literature which discusses morphology, habitat, pharmacological actions and ethno-botanical therapeutic uses of this medicinal plants. It is concluded that, this is one of the best herbal medicine for pyrexia, diabetes mellitus and syphilis in USM.

Keywords: Giloy, *Tinospora cordifolia*, Unani system of medicine (USM)

Introduction
Giloy (*Tinospora cordifolia*) is a climbing shrub that grows on other trees, from the botanical family Menispermaceae [1]. The plant is native to India but also found in China and tropical areas of Australia and Africa.
It's considered an essential herbal plant in Ayurvedic and folk medicine, where people use it as a treatment for a wide range of health conditions [2].
In Sanskrit, "guduchi" means something that protects the whole body, and "amrita" means immortality [10].

Botanical description

Scientific name	*Tinospora cordifolia*
Plant family	Menispermaceae
Hindi name	Giloy
Sanskrit name	Guduchi
Other name	Amrita
Kingdom	Plantae
Division	Tracheophyta
Class	Magnoliopsida
Order	Ranunculales
Family	Menispermaceae
Genus	Tinospora
Species	T. Cordifolia

Medicinal parts
- Stem
- Leaves

Stem is a main medicinal part of Giloy (*Tinospora cordifolia*).
Leaves are also beneficial in liver diseases [3].

Medicinal properties
Giloy (*Tinospora cordifolia*) has following healing properties.
Primary Actions

- Immunomodulator
- Rejuvenative
- Adaptogen
- Anti-inflammatory
- Mild Analgesic
- Antacid
- Febrifuge
- Anti-gout
- Anti-mutagenic

Secondary Actions
- Demulcent
- Carminative
- Anti-constipation
- Digestive Stimulant
- Hypo-glycemic
- Diuretic (Only with heavy dosage)

Ayurvedic properties

Taste Rasa	Bitter and astringent
Guna	Guru Snigadh
Potency Virya	Ushna
Vipak	Madhur
Prabhav	Rejuvenative, Immunomodulator and adaptogen
Dosh	Pacifies tridosh

Botanical description

The plant family Menispermaceae consists of about 70 genus & 450 species that are found in tropical low land regions [4]. *Tinospora cordifolia* is a perennial deciduous twiner with succulent stem. The bark is papery, creamy white to gray in appearance with large rosette like lenticels. Leaves are simple, alternate or lobed, cordate, entire, 7-9 nerved; flowers are small cymose, yellow or greenish colour. Male and female flowers are formed on separate branches. Male flowers are clustered while female flowers are usually single [8]. Fruits are shaped, shiny, druping and become red when fully grown. Flowers grow during summer; and fruits, during winter. It is propagated by cuttings. The leaves afford a good fodder for cattle [9]. It has tubercles on the surface of grayish stem. Leaves are broad and heart shape.

Therapeutic indication
- General
- Fever
- Common cold
- Heart & Blood
- High cholesterol levels
- Atherosclerosis
- Heart weakness
- Digestive Health
- Acidity
- Chronic Gastritis
- Constipation
- Duodenal ulcer
- Heartburn
- Peptic ulcer
- Mouth ulcer
- Ulcerative colitis
- Hepatitis
- Inflammation of gallbladder
- Loss of appetite
- Indigestion
- Gas or flatulence
- Bloating
- Abdominal distension
- Muscle, Bones & Joints
- Rheumatoid arthritis
- Gout
- Kidney & Bladder
- Interstitial cystitis
- Burning sensation in urine
- Oily or sticky discharge in urine (with Patha)
- Dysuria

Chemical constituents

Various chemical constituents have been found in different parts of the Giloy plant. They belongs to different classes such as alkaloids, diterpenoid, lactones, steroids, glycosides, aliphatic compounds, polysaccharides [11].

Conclusion

Giloy (*Tinospora cordifolia*) is a plant medicine which is widely used in Unani system of medicine (USM) for various therapeutic purposes. It has antipyretic, analgesic, anti-inflammatory purpose and anti-diabetic potential [12]. There are reports as already discussed that the plant extracts have active compounds in the form of alkaloids, glycosides, lactones and steroids. All these active compounds have immunomodulatory and physiological roles of different types, thereby demonstrating the diverse versatility of the plant [13]. Studies need to be conducted with aspects how the active compounds actually interact with the living systems and affects the structure-function relationships. Crystal structures of the membrane bound receptors and the activation of the downstream signaling cascades and the changes in the immediate environment of the site of action can lead us into identification of novel perspectives into our understanding of nature.

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