

# Study of medicinal properties of Herb *Tinospora Cordifolia* (Giloy) in preventing various diseases/abnormalities by increasing immunity naturally in human bodies

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**Abstract** – India has proven itself for its medicinal remedies by Ayurveda since a long ago which shows that India has enormous vegetation which have medicinal remedies in them. These medicinal properties in these plants seldom have any side-effects. This has dragged scientists from all across the globe to pursue their researches based on Indian ancestral methods and methodologies of cure for various diseases. One of such proven herb is *Tinospora cordifolia* (commonly known as Giloy). *Tinospora cordifolia* is known by various names in different part of the country. This work shows various importance of *Tinospora cordifolia* in preventing various diseases/abnormalities by increasing immunity naturally in human bodies.

**Keywords**— *Tinospora cordifolia*, Giloy, Guruch, Medicine, Herb, Immunity plant, Climbing Herb

## INTRODUCTION

*Tinospora cordifolia* commonly named as Giloy, Guruch, Guduchi in Sanskrit. It belongs to the family Menispermaceae. The plant is climbing shrub with greenish yellow heart-shaped leaf, found at higher altitude. Giloy is also known as Amrita which means “Root of Immortality” because of its various health benefits. The stems are rather succulent with long filiform fleshy aerial roots form the branches. The bark of the plant is gray brown and watery. The leaves have membranes and flowers are small and green in colour. The height of this herb is maximum 300 meters. The flowers are active in last of summers till winters. The variety of active components which is derived from the herb is alkaloids, steroids, diterpenoid lactones, aliphatics, and glycosides and these can be isolated from various parts of the body like root, stem, and whole plant.



Figure 1: Giloy climbed upon Neem tree



*Figure 2: Heart shape leaf of Giloy*

## **HISTORY**

*Tinospora cordifolia* (Giloy) have plenty of health and skin benefits. Though we don't have proof but there is two history behind the origin of this magical plant first one is that is has been said that during the samundra manthan a pot full of amrita came out from the sea and some people's took it and ran, during this some drops of amrita fell on the earth which took the form of climbing shrub known as Giloy and the another one, is that there is some proof which shows that when Lord Rama went to SriLanka then during the war of Rmayana between Ram and Ravana giloy is used for the treatment of the warriors.



*Figure 3: Fresh stems of Giloy*

## **BENEFITS OF TINOSPORA CORDIFOLIA**

### **1. Full of Immunogenic Properties:**

Giloy helps to boost our immunity because of which we are able to fight with chronic fever, viral diseases or any kind of infections.

### **2. Cures gastro-intestinal disorders:**

With the regular use of Giloy we can get rid from the gastro-intestinal disorders like constipation.

### **3. Cures Skin diseases:**

It has also been seen in many researches that with the regular use of Giloy many skin diseases can be treated like pigmentation, pimples, acne etc.

### **4. Helpful to cure diabetes:**

Giloy extract is very much helpful in treating cancer. It naturally increases the level of insulin in blood and enhance the capacity to burn glucose.

### **5. Cure Arthritis:**

Giloy contains the anti-inflammatory properties and anti-arthritis properties which helps to cure different type of arthritis like Rheumatoid arthritis, Gouty arthritis etc.

### **6. Improve Eye-Sight:**

The regular use of Giloy helps to improve the vision. We can also use the Giloy as eye drop, we just have to boil the Giloy powder in the water and let it cool.

Giloy can be taken with other ingredients, for its more benefits it is used in the different forms also like it is used with the ginger for the treatment of arthritis and in some cases it can be used with the milk also.

## **PHYTO-CHEMISTRY**

There are various compounds within the plant extract of varied natures that are either directly or indirectly liable for the expression of biological characters within the plant or host system. Different classes of compounds which are present during this plant are classed in groups like alkaloids, steroids, terpenoids, polysaccharides, glycosides and different aromatic and aliphatic compounds that are present in their phytoactive form that are liable for the wide selection of medicinal and therapeutic properties.

The presence of those compounds is found in various plant parts but highly concentrated within the stem, leaves and root a part of the plant. the most compound of this plant is berberine and furanolactone and furthermore compounds like tinosporone, tinosporic acid, cordifolisides A to E, giloin, gilenin, crude giloininand, arabinogalactan polysaccharide, picrotene, bergenin, gilsterol, tinosporol, tinosporidine, sitosterol, cordifol, heptacosanol, octacosonal, tinosporide, columbin, chasmanthin, palmarin, palmatosides C and F, amritosides, cordioside, tinosponone, ecdysterone, makisterone A, hydroxyecdysone, magnoflorine, tembetarine, syringine, glucan polysaccharide, syringine apiosylglycoside, isocolumbin, palmatine, tetrahydropalmatine, jatrorrhizine are few of the compounds that are isolated from the plant. The presence of three compounds like cycloephordenol, Cyclohexyl-11-heneicosanone and 2-Hydroxy-4-methoxy- benzaldehyde has been isolated from the plant and has been seen to be present in various other plants. The presence of proteins and miscellaneous compounds has been attributed to the medicinal properties of the plant.

## PHARMACOLOGICAL ASPECTS

### 1. Anti-diabetic activity

T. Pharmacological studies have demonstrated the in vivo antidiabetic potential of various substances of Cordifolia. Its firepower is reported to be mediated by a number of biologically active phytosensitives isolated from different parts of the plant, including alkaloids, tannins, cardiac glycosides, flavonoids, saponins, and steroids.

### 2. Aphrodisiac activity

Tinospora cordifolia extract focuses on both arousal and performance on mice of both sexes. It was found that animals treated with plant extracts showed increased sexual behavior and increased. Both extracts, as clearly indicated, increase the number of mounts such as hydrolysis and aqueous extracts, ano-genital dysfunction, penis erection index, ejaculation, and sexual intercourse as a powerful aphrodisiac activity of Tinospora cordifolia.

### 3. Anticoagulant activity

Contraindications were reached by determining and comparing the test group with the standard drug treatment group. The inhibition of the petroleum ether extract was 35.3% and the ethanol extract phase was 61.1% with% inhibition of the diffusion phase. Ethanolic extract for treated animals has been found to have better efficacy than standard treatment cases.

### 4. Anti-oxidant activity

The presence of Tinospora cordifolia stem extract arabinogalactan produces immunity. All of these secondary metabolites, probably from all three plants, have a major role in influencing and inhibiting the microorganisms under investigation. T. It is further observed that those extract combinations with Cordifolia showed good resistance and sensitivity to various pathogens. This study is based on t. This supports the traditional use of Cardifolia and suggests that there are some major bioactive compounds that inhibit microbial growth by proving to be a very effective source of derivatives.

### 5. Anti-inflammatory and wound healing activity.

The dried stem of T. cordifolia produced significant antiinflammatory effects in acute and sub-acute models of inflammation. T. in acute inflammation. T. Cardifolia has been found to be more effective than acetylsalicylic acid, but less severe than phenylbutazone.

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## CONCLUSION

The pharmacological and clinical studies reported in the present review confirm the medicinal properties of Herb Tinospora Cordifolia (Giloy) in preventing various diseases/abnormalities by increasing immunity naturally in human bodies. Chemical compounds present in this plant or herb justify that the plant could serve as "active compound" for the various diseases in the coming years. More study is needed about Tinospora cordifolia to explore further, about its potential in preventing and treating various diseases.

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