

REVIEW ARTICLE

A Critical Review on *Guduchi* (*Tinospora cordifolia* [willd.] miers) and its Medicinal Properties

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ABSTRACT

Introduction: First of all, *Tinospora cordifolia*, sometimes referred to as “*Amrita*” or “*Guduchi*,” is a crucial medication utilized in Indian Systems of Medicine and has been for ages. The Sanskrit term “*guduchi*” means “which protects the body from diseases.” This herb is also known by the name “*Amrita*,” which in Hindu mythology alludes to the celestial nectar.

Aim: This well-known Indian bitter is recommended for fevers, diabetes, dyspepsia, jaundice, skin conditions, kidney issues, persistent diarrhea, and dysentery. Leprosy, helminthiasis, rheumatoid arthritis, and cardiac problems have all been shown to benefit from it. It is a significant medication that is utilized in a variety of preparations, including *Swarasa*, *Ghruta*, *Satva*, *Tail*, etc.

Material and Methods: For this review article, *Charaka Samhita*, *Sushruta Samhita*, *Ashtanga Hridaya*, *Ashtanga Sangraha*, *Bhavprakash Nighantu*, *Raj Nighantu*, *Dhanvantari Nighantu*, *Shaligrama Nighantu*, *Priya Nighantu*, *Kaiydev Nighantu*, *Madanpal Nighantu*, *Shodhal Nighantu*.

Results: It has long been recognized that the *T. cordifolia* plant possesses strong therapeutic, medicinal, healing, and soothing properties.

Discussion: *Guduchi*'s anti-toxic, anti-inflammatory, antipyretic, and anti-oxidant qualities make it a highly promising medicinal herb. In addition, there is no proof that *Guduchi* contains any harmful substances or adverse effects, demonstrating its safety.

Conclusion: *T. cordifolia*, often known as *Giloy*, is an herb with medicinal characteristics that can prevent many diseases or abnormalities by naturally boosting immunity in human bodies. These properties are confirmed by the therapeutic and safety aspects research included in this review.

1. INTRODUCTION

Herbal and traditional medicines have a long history and are widely used in India. Natural medicines are becoming more and more important in clinical research these days. In the enormous collection of significant *Guduchi* (*Tinospora cordifolia*), one of the medicinal

herbs, is extremely valuable for both international trade and treatments. *T. cordifolia* is also known by the Sanskrit names *Giloy*, *Guruch*, and *Guruchi*. It is a member of the *Menispermaceae* family. At higher elevations, the plant is a climbing shrub with heart-shaped, greenish-yellow leaves. *Giloy*'s many health advantages have earned it the nickname *Amrita*, which translates to “Root of immortality.” The branches are formed by long, fleshy, filiform aerial roots that resemble succulent stalks. The plant has watery, grey-brown bark. There are membranes on the leaves, and tiny, green blooms are present. This herb can grow up to 300 meters tall. From the end of summer through the

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winter, the flowers are in bloom. From the end of summer through the winter, the flowers are in bloom. The plant's active ingredients include lactones, glycosides, steroids, diterpenoids, alkaloids, and aliphatics.^[1] These constituents can be extracted from the root, stem, and entire plant. According to mythology, *Guduchi* is a heavenly elixir that keeps celestial beings young forever and prevents them from becoming old. *Bhavaprakasha* stressed the significance of medicines by mentioning *Guduchi* in detail and dedicating a *Varga* in his honor.

2. MATERIALS AND METHODS

Charaka Samhita, Sushruta Samhita, Ashtanga Hridaya, Ashtanga Sangraha, Bhavprakash Nighantu, Raj Nighantu, Dhanvantari Nighantu, Shaligrama Nighantu, Priya Nighantu, Kaiydev Nighantu, Madanpal Nighantu, Shodhal Nighantu, and other sources are the references that are now available for the drug *T. cordifolia*.

2.1. Samhita Kaal

Charaka Samhita – *Guduchi* is covered under eight distinct *Dashemani* and has multiple synonyms listed under it. The best *Sangrahika* and *Vibandha Prashamana* properties are attributed to *Guduchi*.

Sushruta Samhita-Guduchi is described as being available in 41 locations and being a part of 9 *Ganas*, or groups, due to its variety of therapeutic applications. In addition, it is grouped with smaller objects such as *Valli Panchmool*.

Ashtanga Sangraha - When treating conditions such as *Jwara* and *Prameha*, *Guduchi* is either stated by itself or in combination with other therapeutic substances.

2.2. Nighantu Kaal

Dhanvantari Nighantu – Seven *Vargas* had seven mentions, with *Guduchi* receiving the most. There are two varieties mentioned: *Guduchi* and *Kanda Guduchi*.

Kaiyadev Nighantu – *Aushadha Varga* mentions *Guduchi*. The varieties *Pinda Guduchi* and *Guduchi* are mentioned.

Bhavaprakasha Nighantu – *Guduchi*, whose mythological genesis includes the qualities of *Rasayana*, *Deepana*, and *Balya*, has been mentioned under *Guduchyadi Varga*.

Raj Nighantu – An explanation of the two kinds of therapeutic uses for *Guduchi* and *Kanda Guduchi* has been reported.

Shaligram Nighantu – The *Guduchyadi* contains a description of *guduchi*.

2.3. Aadhunika Kaal

Dravyaguna Vigyana – Vernacular names, synonyms, botanical descriptions, characteristics, and actions on many systems are detailed along with the medicinal dose and formulation of the Latin name.

Indian Medicinal Plant – Its therapeutic applications, botanical description, and several species are all displayed.

Materia Medica – There is documented usage of *Guduchi* for scorpion bites, coupled with a thorough description of the herb.

2.4. Nirukti^[2,3]

“*Rogebhyaiti, Dadatirakshati.*”

Guduchi offers illness prevention.

2.4.1. Nirukti of synonyms^[4]

- *Amritvalli* – The plant's creeper never withers.
- *Chhinnaruha* – *Guduchi* sprouts again after being chopped.
- *Amrit* – *Guduchi* is a highly helpful plant with characteristics similar to those of a nectar.
- *Kundali* – *Guduchi* climbs the supporting plant in a spiral motion.
- *Kandobhava* – *Guduchi* can be propagated by stem.
- *Chakralakshana* – The stem exhibits a circular form when cut transversely.
- *Jvaranashini* – Very efficacious drug fever.
- *Jivanti* – *Guduchi's Rasayana* attribute safeguards life.
- *Madhuparni* – Crushed leaves yield a viscous liquid similar to honey.
- *Tantrika* – The *Guduchi* stem has a rope-like appearance.
- *Mandali* – *Guduchi* makes a round ascent up the supporting plant.
- *Vishalya* – *Guduchi* shield by eliminating poisons.
- *Chandrasaha* – The seeds have a semilunar form.
- *Rasayani* – *Guduchi's* has revitalizing qualities.

2.5. Gana/Varga

Table 1: Displaying the categorization based on different authors.

2.6. Bhedas/Varieties

Table 2: Displaying the *Guduchi* variations as reported by different writers.

2.7. Chemical Constituents^[5]

Alkaloids, steroids, terpenoids, polysaccharides, glucosides, and various aromatic and aliphatic compounds are among the various classes of compounds present in this plant. These compounds are present in their phytoactive form, which is what gives them their wide range of therapeutic and medicinal properties. Although these compounds are present in many plant sections, they are most abundant in the stem, leaves, and roots details are mentioned in Table 3.

2.8. Rasapanchaka

Rasapanchaka of *Guduchi* is shown in Table 4.

2.9. Karmas

Table 5: Showing Karmas of *Guduchi*.

2.10. History and Vedic References

Applications in traditional medical systems – The Ayurvedic herb *Guduchi*, also known as *Amrita*, are referenced in several traditional Ayurvedic texts, including *Charaka, Sushruta*, and *Ashtanga Hridaya*, as well as in treatments such as *Bhavprakash* and *Dhanvantari Nighantu*. It is also known by other names, such as *Amara, Amritavalli, Chhinnaruha, Chhinnodbheda, and Vatsadani*.

It is referenced under “*Tikta-Shakavarga*” in the *Sushruta Samhita* and is said to be beneficial for curing Leprosy (*Kushtha*), Fever (*Mahajvara*), Asthma (*Shwasa*), and Anorexia (*Aruchi*). In other treaties, *Charak Samhita* and *Ashtang Hridaya*, it has been indicated in diseases such as *Kamala* (Jaundice), *Jvara* (Fever), and *Vatarakta* (Gout).

It is regarded in *Bhavprakash* as a bitter tonic, diuretic, astringent, and strong aphrodisiac as well as a remedy for diabetes, skin infections, jaundice, and persistent diarrhea and dysentery.

According to *Dhanvantari Nighantu*, it has medicinal qualities that may

treat erysipelas, prolong life, and heal bleeding piles. There are reports of it being a strong vegetable tonic. As a rejuvenator, it is recommended for a number of debility-causing illnesses. The fecula is beneficial, particularly in cases of diarrhea, cold fevers, seminal weakness, urinary affections, jaundice, skin conditions, different types of diabetes, and stomach irritation. Ayurvedic practitioners have a traditional notion that *Guduchi Satwa*, which is derived from the *Guduchi* plant that grows on the *Azadirachta indica* tree, is more bitter and effective. It is also said to contain the therapeutic value of Neem. In addition, the medication's unique tonic, antiperiodic, and diuretic qualities attracted the interest of European doctors in India, and it was added to the Bengal pharmacopeia in 1868.

In Ayurvedic literature, *T. cordifolia* is included as one of the ingredients in a number of compound compositions intended to treat fever, dyspepsia, general debility, and urinary disorders.

2.11. Some of the Important Formulations are

Dashmoolarishta, Sanjivanivati, Kantakari Avaleha, Chyavanprash, Kashaya Churna, Panchanimba Churna, Guduchi Ghrita, Amrita Guggul, Amritashtaka Churna, and so on are some examples of *Churnas*.

“*Sat Giloy*” is mainly included in the preparations in the Unani system. A febrifuge, “*Ara Giloy*,” made from fresh plant material, is used, whereas a general tonic is “*Ara Maul-Laham Mako-Kashiwala*.”

2.12. Rogagnata

Part Used^[5,6]

- Stem
- Leaf
- Root
- Posology^[1,6,7]
- *Kwatha* - 50–100 mL
- *Churna* - 1–3 g
- *Satwa* - 5–25 ratti are mentioned in Table 6

2.13. Uses in Folk and Tribal Medicine^[8]

Particular attention is given to *T. cordifolia* since it is used in several regions of the nation in traditional or tribal medicine. Some significant applications that have been mentioned in Table 7:

2.14. Yogas of *Guduchi*^[6,7]

Yogas are mentioned in Table 8.

2.15. Substitutes and Adulterants

Other species of *Tinospora*, such as *Tinospora sinensis*, *Tinospora malabarica*, and *Tinospora crispa*, are substituted for or mixed with *T. cordifolia*. Despite the fact that *T. sinensis* and *T. cordifolia* share many microscopical characteristics, there are not many traits that separate the two species. The sclerenchymatous sheath of *T. cordifolia* disintegrates into sporadic, irregular patches in the cortical regions, whereas the sheath of *T. sinensis* breaks into portions that seal the vascular bundle and persists even after additional secondary development. These are the two distinctive characteristics. While *T. cordifolia* lacks crystals, *T. sinensis* has a sizable calcium oxalate crystal inside the lumen of every cork cell. *T. cordifolia* has more mucilaginous cells than *T. sinensis* vascular strands, or *T. cordifolia* has less mucilaginous cells than *T. sinensis*. In *T. cordifolia*, the xylem is well-developed in every vascular strand strip, but in *T. sinensis*, it is poorly developed. In *T. cordifolia*, the pith is made up of thin-walled

cells and is quite narrow, whereas in *T. sinensis*, it is large. Compared to *T. sinensis*, *T. cordifolia* has a higher starch concentration.

2.16. Standards for Identity and Purity^[7] (Quantitative Standards)

The identification and purity requirements listed below are reported.

- Exogenous matter - not exceeding 2.0%
- Total Ash: Seven percent or less
- Extractive solubility in ethanol - not less than 6.0%
- Acid soluble ash - not less than 0.8%
- Decrease in drying - at most 7.5%
- Lead levels should not exceed 10 ppm
- Arsenic levels should not exceed 2 ppm
- Heavy metal levels should not exceed 20 ppm
- Total bacterial counts should not exceed 3000 CFU/g
- Yeasts and molds should not exceed 100 CFU/g
- And the amount of bitters on a dry basis as determined by gravimetry or high-performance thin layer chromatography should not be <3% w/w.

2.17. Therapeutic Applications^[9-21]

Are mentioned in Table 9.

2.18. Effects on Stress, Learning and Memory

As *Medhya Rasayana* (learning and memory enhancer; *Mandukparni, Shankhapushpi, Guduchi, Yashtimadhu*) in Ayurveda, *T. cordifolia* is referred to. It is also mentioned as being beneficial for the therapy of *Bhrama* (vertigo) in several Ayurvedic books. Children with mild to severe behavioral issues and mental deficits have shown significant responsiveness in addition to improvement in IQ.^[22] Because of its anti-stress properties, the root of *T. cordifolia* has been traditionally used to treat rheumatoid arthritis.^[23]

2.18.1. Anti-allergic activity

According to some Ayurvedic scriptures, *T. cordifolia* is used to cure *Kasa* (cough) and *Shwasa* (asthma) [Table 9]. Asthma has long been treated using *T. cordifolia*, and persistent coughs are also treated with the juice.

2.18.2. Anti-oxidant activity

T. cordifolia is mentioned as *Vishaghni, Vishahara*, and *Tridoshashamaka* in various texts of Ayurveda [Table 9].

2.18.3. Anti-neoplastic and radioactive activity

In a host that is harboring cancer, *T. cordifolia* stimulates the proliferation and myeloid differentiation of bone marrow precursor cells and activates dendritic cells generated from tumor-associated macrophages.^[24] It works well against a variety of malignancies destroying the cancer cells with great efficiency^[25] and inhibits the onset of skin cancer.^[26,27]

2.18.4. Anti-pyretic and anti-infective activity

T. cordifolia has long been recognized for its *Jwarahara* action, or antipyretic effect [Table 9].

2.18.5. Hepato-protective activity

Different Ayurvedic formulations of *T. cordifolia* are recommended for *Kamala* (jaundice) and *Pandu* (anemia). *Guduchi* is crucial for the restoration of normal liver function (alanine transaminase, aspartate transaminase).^[28]

2.18.6. Anti-hyperglycemic activity

In Ayurveda, *T. cordifolia* is frequently used to treat diabetes mellitus.^[29-31] *Giloy*'s nickname, *Madhunashini*, translates to “destroyer

of sugar. It facilitates the synthesis of more insulin, which in turn regulates blood sugar levels. Numerous studies show improvements in experimental diabetic gastropathy and neuropathy^[32] lowering blood sugar in hyperglycemic individuals treated with alloxan^[33] notable decrease in brain lipids and blood sugar.^[34] *Giloy* is also useful for diabetes complications such as ulcers, and kidney problems.

2.18.7. Immunomodulatory activity

T. cordifolia is said to possess the following Ayurvedic properties: *Rasayana* (rejuvenating), *Balya*, *Vayahsthan* (anti-aging), *Ayushyaprada* (extended life), *Vrishya* (aphrodisiac), and *Chakshushya* (helpful for eye ailments).

2.18.8. Anti-angiogenic activity

The control of blood cytokine and growth factor levels is associated with the plant *T. cordifolia*.^[35]

Patients with diabetes who received *T. cordifolia* as an adjuvant treatment for their foot ulcers had noticeably superior outcomes, including improved wound healing.^[36]

2.18.9. Diuretic activity

In Ayurveda, *T. cordifolia* has been mentioned as being helpful both individually and in a variety of formulations for *Mutrakrichha* (urinary problems).

2.18.10. Cardio-protective activity

T. cordifolia is described by *Bhavprakash* and *Shaligram Nighantu* as having *Hrudhya* (cardioprotective) qualities and being a good *Hridroga* (cardiac problems) [Table 9].

2.18.11. Anti-leprotic activity

T. cordifolia is widely utilized in *Kandu* and *Visarpa* (kinds of skin problems) and is known for its *Kushthahara* (antileprotic) qualities.^[37]

2.18.12. Gastrointestinal and antiulcer activity

T. cordifolia is used in Ayurvedic medicine for *Sangrahani*, *Arshahara*, *Aruchinashaka*, *Deepana*, *Chhardihara*, *Trishnahara*, and *Hikkahara* treatments. It has been demonstrated that using a *T. cordifolia* formulation lowers ulcer index total acidity.^[38]

2.18.13. Anti-fertility activity

It significantly reduced the weight of the ventral prostate, seminal vesicle, epididymis, and testes.^[39]

2.18.14. Osteoprotective activity

Because the tibia's bone loss was less rapid than that of the controls, *T. cordifolia* was shown to have an osteoprotective effect. *T. cordifolia* extracts may find application as an antiosteoporotic agent.^[40,41]

2.19. *Giloy* for Corona Virus Infection

Giloy may be beneficial for a number of fevers, especially viral fevers like coronavirus infection since it can boost immunity. Even though there is no evidence that golly can treat coronavirus infections, it can strengthen our immunity to stave them off. We can take *Giloykadha* or *Giloy* juice twice a day for 4-6 weeks.

2.20. Toxicology

There is currently no meaningful information on side effects available. Despite the fact that this plant has previously been the subject of several trials, nothing notable has been done in this regard as of yet. Ayurveda prescribes using herbs in conjunction with other herbs to counteract the effects of one another or to strengthen the specific effects of one herb.

2.21. Safety Aspects

The medication is generally regarded as safe at the specified dosage. The Ministry of AYUSH has lately become aware of safety issues with the usage of *Guduchi (T. cordifolia)*, which have been reported in scholarly publications and on social media. This notice is intended to reassure people that *Guduchi (T. cordifolia)* is safe to use. Only *T. cordifolia* should be used in medicinal applications; however, certain species that resemble it, such as *Tinospora crispa*, may be dangerous or have unfavorable consequences.

3. RESULTS

Amrita, in addition to being an effective immune system enhancer, is also an aphrodisiac, anti-inflammatory, antihyperglycemic, cardioprotective, antileprotic, osteoprotective, hepatoprotective, anti-ulcerative, diuretic, anti-neoplastic, and radioactive. The practice of *Rasayana* aims to bestow onto physical tissues and cells the transcendent qualities of *Rasaadi Dhatus*. One of the most potent Ayurvedic medications is *Guduchi*, which possesses all the qualities of *Rasayana*.

4. DISCUSSION

Rasayana is a phrase that describes food or sustenance. *Rasayana* medications revitalize the body and mind by primarily affecting dietary dynamics. *Rasayana* medications also support intelligence and fortitude, extend life, and aid in illness prevention. *Amrita* is one of the four medications in the *Medhya Rasayana* that has a calming and anxiolytic effect, supporting the preservation of human mental health. When frequently ingested, it promotes strength, Agni, complexion, voice, and intelligence while also easing sickness. One achieves longevity, memory, intellect, freedom from disease, youthfulness, excellence of luster, maximum strength of body and sense organs, perfection in deliberation, respectability, and brilliance upon frequent ingestion in the appropriate quantity. Clinical assessment of a medication without hormones, Minofil, that contains *T. cordifolia* in addition to other plant medications was tested on post-menopausal women. *T. cordifolia*, often known as *Giloy*, is an herb with medicinal characteristics that can prevent many illnesses or abnormalities by naturally boosting immunity in human bodies. These properties are confirmed by the therapeutic and safety aspects research included in this review.

5. CONCLUSION

Guduchi is an ingredient in several Ayurvedic remedies that have been used for ages to treat a wide range of illnesses. As a *Rasayana*, it strengthens the body's defenses against infections and the immune system. (Pre-clinical and clinical experiments) have been utilized to evaluate the therapeutic effectiveness of *T. cordifolia*, which is widely employed in the Indian Systems of Medicine, in a variety of medical situations. To learn more about *T. cordifolia*'s potential for treating and preventing different ailments, more research is required. The most effective treatment for any health issue is this traditional medication.

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7. AUTHORS' CONTRIBUTIONS

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9. ETHICAL APPROVALS

This study does not require ethical clearance as it is a review study.

10. CONFLICTS OF INTEREST

Nil.

11. DATA AVAILABILITY

This is an original manuscript and all data are available for only review purposes from principal investigators.

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Table 1: Displaying the categorization based on different authors

Classical Text	Gana/Varga
<i>Charaka Samhita</i>	<i>Triptighna, Stanyashodhana, Dahaprashamana, Snehopaga, Trishna-Nigrahana, Sandhaniya, Vayasthapana.</i>
<i>Sushruta Samhita</i>	<i>Guduchyadi, Patoladi, Aaragvadhadi, Kakolyadi, Vallipanchmool.</i>
<i>Ashtanga Hridaya</i>	<i>Shakavarga, Padmakadigana, Patoladigana, Guduchyadi, Aaragvadhadi, Shyamadigana.</i>
<i>Bhavprakash Nighantu, Dhanvantari Nighantu, Raj Nighantu, Shaligrama Nighantu, Nighantu Aadarsha, Shodal Nighantu</i>	<i>Guduchyadi</i>
<i>Madanpal Nighantu</i>	<i>Abhayadivarga</i>
<i>Kaiyadeva Nighantu</i>	<i>Aushadiyavarga</i>

Table 2: Displaying the *Guduchi* variations as reported by different writers

S. No.	Classical texts/Nighantu	No.	Bhedas
1.	<i>Dhanvantari Nighantu</i>	2	<i>Padma Guduchi, Kanda Guduchi</i>
2.	<i>Kaiyadeva Nighantu</i>	2	<i>Guduchi, Pinda Guduchi</i>
3.	<i>Raj Nighantu</i>	2	<i>Guduchi, Kanda Guduchi</i>

Table 3: Chemical constituents in three different varieties

<i>Tinospora cordifolia</i>	Diterpenoid of columbin type-tinosporin Tinosporide, Cordifolide Tinosporidine and β -Sistosterol, Cordifol, Heptasanol, Octasanol. Furanoid diterpene-tinosporide Five diterpene furan glycosides, cordifolisides A-E and two phenyl propane glycosides. Isocolumbin, tetrahydropalmatine, mangoflarine and palmatine.
<i>Tinospora malabarica</i>	β -Sistosterol, tetracosanoic acid and tinosporin Tinosporine and 5-allyloxy-6,7,4-trimethoxyflavone. Synthesis of 1,1-dibenoyl ethane Kokusagine Malabarolide from the stem is a new Bison or diterpenoid. Magnoflorine, quercetin -3-0-glucoside, kaemferol, 3-0 glucoside from menispermicide New phenolic glycoside-tinosinen.
<i>Tinospora crispa</i>	Apigenin, Diosmetin (Luteolin 4 methylether), Genkwanin, Luteolin 4-methylether 7-glucoside, Genkwanin 7-glucoside, Luteolin 4-methyl ether 3 glucoside. Cycloucalenol, Cycloeucaenone. Litcubinine, Salsolinol, Berberine, Palmatine. β -sistosterol stigmaterol, makisterone C Secoisolaricresinol, syringaresinol, Adenosine, Uridine, Adenine. Tinocrispol A Borapetol A, Borapetol B

Table 4: Rasapanchaka of *Guduchi* is shown

Classical	Rasa	Guna	Virya	Vipaka
<i>Charaka Samhita</i>	Tikta	Guru	Ushna	Madhura
<i>Sushruta Samhita</i>	Tikta	Guru	-	Guru
<i>Ashtanga Sangraha</i>	Tikta	-	Ushna	-
<i>Ashtang Hridaya</i>	Tikta	-	Sheeta	Katu
<i>Dhanvantari Nighantu</i>	Tikta, Kashaya	Guru	Ushna	
<i>Madanpal Nighantu</i>	Katu, Tikta, Kashaya	Laghu	Ushna	Madhura
<i>Kaiyadev Nighantu</i>	Tikta, Kashaya, Katu	Laghu	Ushna	Madhura
<i>Raj Nighantu</i>	Tikta, Kashaya	Guru	Ushna	-
<i>Bhavprakash Nighantu</i>	Katu, Tikta, Kashaya	Laghu	Ushna	Madhura
<i>Shaligram Nighantu</i>	Tikta, Kashaya	Guru, Ushna	Ushna	Madhura
<i>Dravyaguna Vigyanam</i>	Tikta, Kashaya	Guru, Snigdha	Ushna	Madhura

Table 5: displaying the *Guduchi Karmas*

Karma	CS	SS	AS	DN	KN	RN	BPN	Sha.N
<i>Vatahara</i>	+	+	+	-	-	+	-	+
<i>Amahara</i>	-	-	-	-	-	-	-	+
<i>Sangrahani</i>	+	-	-	+	+	-	+	+
<i>Hridhya</i>	-	-	-	-	+	-	-	+
<i>Balya</i>	+	+	+	+	+	-	+	+
<i>Vanhnikrita</i>	-	-	-	-	+	-	-	-
<i>Vatapittahara</i>	+	+	+	-	-	-	-	-
<i>Ayushya</i>	-	-	-	+	-	-	-	+
<i>Medhya</i>	-	-	-	+	-	-	-	-
<i>Medohara</i>	-	+	+	+	+	-	-	+
<i>Pittahara</i>	+	+	+	+	-	-	-	-
<i>Vataraktahara</i>		-	-	+	+	-	+	+
<i>Dipaneeya</i>	+	+	+	-	-	-	+	+
<i>Rasayani</i>	+	+	+	-	+	-	-	+
<i>Tridosahara</i>	-	+	+	+	-	-	+	+
<i>Vayasthapaniya</i>	+	-	-	-	-	-	-	-
<i>Raktadoshahara</i>	-	+	+	-	-	+	-	+

Table 6: Rogagnata of *Guduchi* according to various authors

Rogagnata	C.S	S.S	A.S	D.N	K.N	R.N	BP.N	Sh.N
<i>Kamalahara</i>	-	-	-	+	-	-	+	+
<i>Pramehahara</i>	-	+	+	-	+	+	+	+
<i>Kandughna</i>	-	+	+	+	-	-	-	+
<i>Trishna-Nigrahana</i>	+	-	-	-	+	-	-	+
<i>Visarpaghna</i>	-	-	-	+	+	-	-	+
<i>Kasahara</i>	-	-	-	-	-	-	+	+
<i>Dahaprashamana</i>	+	+	-	-	-	+	+	+
<i>Kushthahara</i>	-	+	-	+	-	-	+	+
<i>Krimighna</i>	-	-	-	+	-	-	+	+
<i>Raktarshaghna</i>	-	-	-	+	-	-	-	+
<i>Bhramahara</i>	-	-	-	-	-	+	-	+
<i>Chardighna</i>	-	+	-	-	-	+	+	+
<i>Panduhara</i>	-	-	-	+	-	+	+	+
<i>Jwarahara</i>	+	+	-	+	-	+	+	+

Table 7: In traditional and indigenous medicine, *T cordifolia (Guduchi)*

Tribals and areas	Diseases	Mode of applications
The tribals of Bombay and its neighboring areas and the fishermen along the sea coast use <i>T. cordifolia</i> as a drug in the treatment	fever, jaundice, chronic diarrhea and dysentery	The whole plant is used
The tribals of the Khedbrahma region of North Gujrat use the plant in their day-to-day life as food or medicine.	The root and stem bark of <i>T. cordifolia</i> are powdered and mixed with milk to treat cancer. The root is also used to heal diarrhea and dysentery, and the older stems are recommended for treating recurrent fever.	Powdered root and stem bark, decoction of root, decoction of the old stem.
Jammu and Bagwada (Rajasthan)	Fever	Decoction of stem
Bhubaneswar (Orissa)	Fever	Warm juice of root of <i>T. cordifolia</i> orally
Patiala (Punjab)	Fever	Juice and decoction of leaves orally with honey
The Muslim tribals of Rajouri, Jammu (Tawi) comprising Gujjars and Backwals	Fracture	Whole plant
In Dahanu forest division of Maharashtra, tribal races Agaris, Bhils, Dhodias, Dublas, Khakaris, Rimoshis, Thakurs, Vardaris, Vagharis and Varlis	As a tonic in general debility	Stem decoction with cold or hot water (about 3–4 g) in the morning on an empty stomach.
Banka (Bihar)	<i>Baalshosha</i> (emaciation in children) <i>Daha</i> (burning sensation)	The shirt of a child is dyed in the juice of <i>Guduchi</i> Paste of juice of <i>Amrita (T. cordifolia)</i> leaves and <i>Sarshapa Beej Churna</i> (seed powder of <i>Brassica campestris</i>) is applied locally
Dhurala (Haryana)	<i>Kasa</i> (Cough)	Powder of <i>Terminalia chebula</i> (Haritaki), <i>T. cordifolia</i> (<i>Amrita</i>), and <i>Trachyspermum ammi</i> (<i>Ajwain</i>) in equal quantity are administered orally, once daily early morning with salt. Decoction of these drugs is also to be taken in a dose of 50 mL.
Arjunpura (Rajasthan)	Raktapradar (leukorrhea) by the local women	Paste of <i>Guduchi (T. cordifolia)</i> and 05 seeds of <i>Krishna (Maricha - Piper nigrum)</i> is administered orally once daily in the morning
Badala (U.P.)	juice of stem orally with honey	<i>Shwasa</i> (Asthma)
Dehrabara Kolaras, Shivpuri District of M.P.	<i>Twakaroga</i> (Skin disease)	Decoction of the stem is administered orally
Mundas of Chhota Nagpur	Fracture	Paste of whole plant used as plaster
In certain parts of India	Bites of poisonous insects and venomous snakes, eye disorders	The paste of <i>Guduchi</i> is applied to the part bitten and administered internally through the mouth at intervals of half an hour. Juice or decoction of the root is poured into the eyes.
Local people of Patiala (Punjab)	<i>Karnashula</i>	2 drops of juice of leaves of allied species or <i>Guduchi (Tinospora sinensis)</i> are dropped in the affected ear.)
Baiga, living in the interior areas of Naugarh and Chakia blocks of Varanasi district, Uttar Pradesh.	Fever	The pills are prepared from the paste of stem of the <i>Guduchi (T. cordifolia)</i> and the roots of (<i>Bhatkatiaya Solanum suretense</i>).

T. cordifolia: Tinospora cordifolia

Table 8: Displaying a few of *Guduchi's* yogas

S. No.	Yoga	Indication
1.	<i>Guduchi Satwa</i>	<i>Prameha, Rajayakshma</i>
2.	<i>Guduchi Taila</i>	<i>Vatarakta</i>
3.	<i>Amritarishta</i>	<i>Sarvajvara</i>

Table 9: *T. cordifolia*'s Karma (activity, pharmacodynamics) and Prayoga (uses)

Karma	Prayoga	Classical references
<i>Rasayana, Sangrahi, Balya, Agnidipana, Tridoshashamaka</i>	<i>Daha, Meha, Kasa, Pandu, Kamla, Kushtha, Vatarakta, Jwara, Krimi, Prameha, Shwasa, Arsha, Mutrakrichha and Hridroga</i>	<i>Bhavprakash Nighantu, Guduchyadi Varga, 8-10</i>
<i>Vata-Pitta-Kaphanashaka, Trishnanashaka, Agnideepaka</i>	<i>Jwara, Chhardi, Daha</i>	<i>Ashtang Sangrah Sutrasthan 7-149,16-10</i>
<i>Sangrahi, Vatahara, Agnideepana, Shleshma-Shonitaprashamana</i>	<i>Vibandha</i>	<i>Charak Samhita Sutrasthan 25-40</i>
<i>Tridosh-Nashaka, Vishaghni, Jwara-Bhootaghni</i>	<i>Jwara, Daha, Trishna, Vatarakta, Prameha, Pandu, Bhrama, Valipalitya.</i>	<i>Raj Nighantu Guduchyadi Varga 17-18</i>
<i>Deepana, Grahi</i>	<i>Kasa, Pandu, Jwara</i>	<i>Arka Prakash Tritiya Shatak</i>
<i>Balya, Tridoshanashaka</i>	<i>Laghujwara, Meha, Daha, Kasa, Pandu, Vitsarana Atisara)</i>	<i>Siddha Bhaishajya Mani Mala Dwitiya guchh 70</i>
<i>Tridoshghni, Grahi, Rasayana, Dipana</i>	<i>Jwara, Daha, Kamala, Vatarakta</i>	<i>Shodhal Nighantu Guna Sangrah, Guduchyadi varga-120</i>
<i>Sangrahi, Balya, Agnideepana</i>	<i>Kamala, Kushtha, Vatarakta, Jwara, Pitta, Vibandha, Krimi</i>	<i>Madan Pal Nighantu Haritakyadi Varga 39,40,41</i>
<i>Sangrahi, Vrishya, Balya, Rasayana, Dipana, Chakshushya, Vayahstapana, Medhya, Tridoshanashaka,</i>	<i>Kushtha, Krimi, Chhardi, Daha, Vatarakta, Pandu, Jwara, Kamala, Meha, Trishna, Kasa</i>	<i>Kaidev Nighantu Aushadhi Varga 09,10,11</i>
<i>Tridoshanashaka, Aayushyaprada, Medhya, Sangrahi</i>	<i>Jantu, Raktarsha, Raktavata, Kandu, Visarpa, Kushtha, Visha, Bhoota, Yali-Palitya, Chhardi, Meha, Jwara</i>	<i>Dhanvantari Nighantu Guduchyadi 05,06,07,08</i>
<i>Grahi, Balya, Rasayana, Deepana, Hridhya, Aayushyaprada, Chakshushya, Tridoshaghna</i>	<i>Wara, Chhardi, Kamla, Daha, Trisha, Bhrama, Pandu, Prameha, Kasa, Kushtha, Krimi, Vatarakta, Kandu, Meda, Visarpa, Aruchi, Hikka, Arsha, Mutrakrichha, Pradara, Somaroga</i>	<i>Shaligram Nighantu Guduchyadi Varga 251,252,253</i>
<i>Pitta-Kaphahara</i>	<i>Vataja Granthi, Vataja Galganda</i>	<i>Sushruta Samhita Sutrasthana 46:270 Chikitsa 18:05,46</i>