



RESEARCH ARTICLE

THERAPUTIC CONTEMPLATION OF ANCIENT AYURVEDA ON *GUDUCHI*
(*TINOSPORA CORDIFOLIA* (WILLD.) MIERS)

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ABSTRACT

Tinospora cordifolia (Willd) Miers. is commonly called as 'Guduchi', 'Amrita' in *Ayurveda*. It is a well known medicinal plant for its massive application in the treatment of various diseases, motioned in the ancient and traditional *Ayurveda* literature. It is a glabrous, perennial, deciduous, climbing shrub of weak and fleshy stem spread across the Tropical India and Andaman. Many potential therapeutic properties have already been reported by various modern scientific researches. But lots of ancient clinical applications of this medicinal herb need to promote for widespread utilization globally. Hence present review aimed to analyze the extensive therapeutic application of this plant mentioned in different classical texts of *Ayurveda*. Review suggests for additional bunch of scientific studies on wide-ranging pharmacological properties of the plant, available in ancient classical literature of medicine.

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INTRODUCTION

Tinospora cordifolia Willd, belonging to the family *Menispermaceae*, is commonly named as *Guduchi* in Sanskrit i.e one which protects the entire body. It is a genetically various, large, glabrous and deciduous climbing shrub commonly distributed throughout tropical Indian subcontinent and China, ascending to an altitude of 300m (Bhandari, 2006).

Therapeutic applications of *Guduchi* mentioned in different classical texts of *Ayurveda*

Table 1. Medicinal uses of *Guduchi* in the various pathological condition of pyrexia available in the texts of *Brihatrayee*

S. No.	Formulations	Indication	References
Charaka Samhita			
1.	Vasadi ghrita	Jirna jwara (~chronic fever)	C.Ci.3/222
2.	Jwaranasak kashaya	Jwara (~fever)	C.Ci.3/198
3.	Agarvadi taila	Sheeta jwara prasamana (~cold fever)	C.Ci.3/267
4.	Shatapala ghrita	Visama jwara (~intermittent fever)	C.Ci.3/298
5.	Vishamajawara nasak kwatha	Vishama jwara (~intermittent fever)	C.Ci.3/202
6.	Guduchyadiniruahavasti	Jwara (~fever)	C.Ci.3/247
Sushruta Samhita			
1.	Patoladi gana	Jwara prasamana (~relapsing of fever)	S.Su.38/33
2.	Guduchyadi gana	Sarvajwara (~all types of fever)	S.Su.38/51
3.	Guduchi shaka	Jwara (~fever)	S.U.39/152
4.	Guduchi kashaya, Drakshadi kwatha, Guduchi swarasa, Guduchi kashaya	Vataja jwara (~fever)	S.U.39/170, S.U.39/173, S.U.39/174, S.U.39/178
5.	Triphaladi yoga	Vishma jwara (~intermittent fever)	S.U.39/212
6.	Guduchyadi ghrita	Jirna jwara (~chronic fever)	S.U.39/223
7.	Patoladi ghrita	Jwara (~fever)	S.U.39/227
8.	Guduchi kwatha	Pittaja jwara (~fever)	S.Ci.5/8
Astanga Hridaya			
1.	Mustadi kwatha, Nagaradi kwatha	Jwara (~fever)	Ah.Ci.1/46, Ah.Ci.1/66
2.	Kiratiktadi kwatha	Vishamajwara (~intermittent fever)	Ah.Ci.1/52
3.	Guduchi swarasa	Jirana jwara (~chronic fever)	Ah.Ci.1/94

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The plant is typically found in deciduous and dry forests. Its flowers bloom in summer. The male flower is small, yellow or green in colour, and occurs in clusters. Female flowers are usually solitary and green colored. The drupes are ovoid, glossy, succulent, red and pea sized. The leaves are heart shaped (giving the name Cordifolia to the plant) and mucilaginous. The fresh stem has a green succulent bark covered by a thin brown bark and studded with warty lenticels. The roots are long with narrow aerial roots (Bhandari C, 2006). The plant has been worshiped for its marvelous medicinal properties since the Vedic period. In *Atharvaveda* the herb used to apply for preventing snakes and scorpions poisons (Atharva Veda, 6/102/3). In *Ayurveda*, it is also known as *Amrita* which indicate its ability to convey youthfulness, vigour and longevity. It is considered as one of the best *Rasayana* (~adaptogens) and incredible in its potent adaptableness (Pandey, 2002). The stems, leaves, and roots are used as medicine in *Ayurveda*. For potent medicinal use all the three parts should be collected in the summer when the bitter qualities are most abundant (Pandey G, 2002). In recent years, significant progress has been attained regarding its biological activity and medicinal applications. Present review aimed to highlight the ancient therapeutic uses of the plant *Guduchi* in various *Ayurveda* classical texts. The word *Guduchi* and all the related synonyms as per *Ayurveda* literature have been searched in various classical texts and discussion was made accordingly.

Table 1A. Medicinal uses of *Guduchi* in the various pathological condition of pyrexia available in the texts other than *Brihatrayee*

S.No.	Formulations	Indications	References
<i>Kashyap Samhita</i>			
1.	<i>Patoladi ghrīta</i>	<i>Jwara</i> (~fever)	<i>Ka.Khi.11/124</i>
2.	<i>Guduchyadi ghrīta</i>	<i>Vishmajwara</i> (~intermittent fever)	<i>Ka.Khi.11/167</i>
3.	<i>Samangadi kwatha</i> <i>Devadaru kwatha</i> , <i>Triphaladi kwatha</i> , <i>Dasamuladi kwatha</i>	<i>Jwara</i> (~fever)	<i>Ka.Khi.19/6 Ka.Khi.19/52 Ka.Khi.19/54 Ka.Khi.2/57</i>
4.	<i>Sriparnakadi kwatha</i>	<i>Kapha, pitta jwara</i> (~fever)	<i>Ka.Khi.10/55</i>
5.	<i>Katuka sarpi</i>	<i>Vishmajwara</i> (~intermittent fever)	<i>Ka.Ka.8/143</i>
<i>Bhela Samhita</i>			
1.	<i>Guduchyadi panakam</i>	<i>Jwara</i> (~fever)	<i>Bh.Ci.28/39</i>
<i>Harita Samhita</i>			
1.	<i>Guduchyadi kwatha</i>	<i>Sannipataja jwara</i> (~fever type)	<i>H.S.2/50</i>
2.	<i>Guduchi swarasa</i>	<i>Vataja jwara</i> (~fever type)	<i>H.S.2/54</i>
3.	<i>Panchasula kwatha</i>	<i>Vataja jwara</i> (~fever type)	<i>H.S.2/63</i>
4.	<i>Lodhradi kwatha</i>	<i>Pittaja jwara</i> (~fever type)	<i>H.S.2/65</i>
5.	<i>Guduchyadi kwatha</i>	<i>Pittaja jwara</i> (~fever type)	<i>H.S.2/71</i>
6.	<i>Vasadi kwatha</i>	<i>Kaphaja jwara</i> (~fever type)	<i>H.S.2/81</i>
7.	<i>Saliparnadi kwatha</i>	<i>Vata, pitta jwara</i> (~fever type)	<i>H.S.2/87</i>
8.	<i>Kiratiktika kwatha</i>	<i>Vata, pitta jwara</i> (~fever type)	<i>H.S.2/88</i>
9.	<i>Pachabhadra kwatha</i>	<i>Vata, pitta jwara</i> (~fever type)	<i>H.S.2/89</i>
10.	<i>Sunthadi kwatha</i> , <i>Drakshadi kwatha</i> , <i>Guduchyadi kwatha</i> , <i>Chudradi kwatha</i>	<i>Pitta, kapha jwara</i> (~fever type)	<i>H.S.2/91, H.S.2/93, H.S.2/94, H.S.2/102</i>
11.	<i>Mustadi kwatha</i>	<i>Bhutaja jwara</i> (~fever)	<i>H.S.2/210</i>
12.	<i>Guduchi swarasa</i>	<i>Tritriyaka jwara</i> (~fever)	<i>H.S.2/215</i>
13.	<i>Nidhigadadi kwatha</i> , <i>Patoladi kwatha</i>	<i>Jirana jwara</i> (~chronic fever)	<i>H.S.2/199, H.S.2/202</i>
<i>Sharangadhara Samhita</i>			
1.	<i>Guduchyadi kwatha</i>	<i>Sarvajwara</i> (~all fevers)	<i>Sa.2/8</i>
2.	<i>Saliparnadi kwatha</i>	<i>Vata jwara</i> (~fever)	<i>Sa.2/12</i>
3.	<i>Bhunimbadi kwatha</i> , <i>Patoladi kwatha</i>	<i>Kapha jwara</i> (~fever)	<i>Sa.2/20, Sa.2/21</i>
4.	<i>Panchabhadra kwatha</i>	<i>Vata, pitta jwara</i> (~fever)	<i>Sa.2/22</i>
5.	<i>Amrtadya kwatha</i>	<i>Pitta, kapha jwara</i> (~fever)	<i>Sa.2/26</i>
6.	<i>Patola kwatha</i>	<i>Pitta, kapha jwara</i> (~fever)	<i>Sa.2/28</i>
7.	<i>Abhayadi kwatha</i>	<i>Sannipata jwara</i> (~fever)	<i>Sa.2/34</i>
8.	<i>Guduchi kwatha</i> , <i>Nidigadhadi kwatha</i>	<i>Jirna jwara</i> (~chronic fever)	<i>Sa.2/46, Sa.2/48</i>
9.	<i>Devavarnadi kwatha</i>	<i>Prasuta jwara</i> (~fever after delivery)	<i>Sa.2/49</i>
10.	<i>Brihadchudradi kwatha</i> , <i>Mustadi kwatha</i>	<i>Vishama jwara</i> (~intermittent fever)	<i>Sa.2/52, Sa.2/54</i>
11.	<i>Patoladi kwatha</i>	<i>Sanatata jwara</i> (~continues fever)	<i>Sa.2/55</i>
12.	<i>Guduchyadi kwatha</i>	<i>Tritriyaka jwara</i> (~tertian fever)	<i>Sa.2/58</i>
13.	<i>Jwaraghani vatti</i>	<i>Jwara</i> (~fever)	<i>Sa.12/57</i>
14.	<i>Hriberadi kwatha</i> , <i>Guduchihima</i>	<i>Jirna jwara</i> (~chronic fever)	<i>Sa.2/69, Sa.4/6</i>
15.	<i>Sudarsan churna</i>	<i>Sarvajwara</i> (~all types of fevers)	<i>Sa.6/27</i>
16.	<i>Panchiktika ghrīta</i>	<i>Visamajwara</i> (~intermittent fever)	<i>Sa.9/92</i>
17.	<i>Sanjivani vatti</i>	<i>Sannipata jwara</i> (~fever)	<i>Sa.7/18</i>

Abbreviation: C-Charaka Samhita, S- Sushruta Samhita, Su-Sutra Sthana, Ci-Chikitsa Sthana, Ka-Kashyap samhita, Ah-Astanga Hridaya, Sa- Sharangadhara samhita. H.S-Harit Samhita, Bh-Bhel Samhita.

Table 2. Medicinal uses of *Guduchi* in the various pathological condition of *Vatavyadhi* (~neurological disorder)

S.No.	Formulations	Indications	References
1.	<i>Bala taila</i> , <i>Amritadhya taila</i> , <i>Vrishamuladi taila</i> , <i>Mulaka taila</i>	<i>Vatavyadhi</i> (~neurological disorder)	<i>C.Ci.28/148 C.Ci.28/157 C.Ci.28/170 C.Ci.28/172</i>
2.	<i>Brihadarasanadi kwatha</i>	<i>Vata roga</i> (~neurological disorder)	<i>H.S.2/126</i>
3.	<i>Namasangyaka ghrīta</i>	<i>Vatavyadhi</i> (~neurological disorder)	<i>H.S.20/52</i>
4.	<i>Rasanaguduchyadi kwatha</i>	<i>Saravangavata</i> (~neurological disorder)	<i>H.S.20/59</i>
5.	<i>Rasnapanchak kwatha</i>	<i>Saptadhatugatvata</i> (~neurological disorder)	<i>Sa.2/87</i>
6.	<i>Maharasnadi kwatha</i>	<i>Sarvavata roga</i> (~neurological disorder)	<i>Sa.2/91</i>
7.	<i>Masadi tail</i>	<i>Vatavikara</i> (~neurological disorder)	<i>Sa.9/125</i>
8.	<i>Dashmularistha</i>	<i>Vatavyadhi</i> (~neurological disorder)	<i>Sa.10/79</i>
9.	<i>Bhairava rasa</i>	<i>Vataroga</i> (~neurological disorder)	<i>Sa.12/168</i>
10.	<i>Baladi tailam</i> , <i>Rsana tailam</i>	<i>Vata vayadhi</i> (~neurological disorder)	<i>Bh.Ci.24/4, Bh.Ci.24/19</i>

Abbreviation: C-Charaka Samhita, S- Sushruta Samhita, Su-Sutra Sthana, Ci-Chikitsa Sthana, Ka-Kashyap samhita, Ah-Astanga Hridaya, Sa- Sharangadhara samhita. H.S-Harit Samhita, Bh-Bhel Samhita.

Table 3. Medicinal uses of Guduchi in the various pathological condition of Arthritis

S.No.	Formulations	Indications	References
1.	<i>Drakshadi kshir, Madhuparnyadi taila, Amritaadya taila, Satapaka madhuparni taila, Guduchyadi taila</i>	<i>Vatashonita</i> (~osteo arthritis)	<i>C.Ci.29/71, C.Ci.29/92, C.Ci.29/103, C.Ci.29/117, C.Ci.29/121</i>
2.	<i>Vednasamak lepa</i>	<i>Vatarka</i> (~osteo arthritis)	<i>C.Su.3/21</i>
3.	<i>Guduchi swarasa</i>	<i>Vattarakatjanya vedana</i> (~pain in osteo arthritis)	<i>S.Ci.5/13</i>
4.	<i>Guduchi swarasa, Guduchi kwatha</i>	<i>Vattashonita</i> (~osteo arthritis)	<i>Ah.Ci.22/7, Ah.Ci.22/15</i>
5.	<i>Guduchi swarasa</i>	<i>Vattashonita</i> (~osteo arthritis)	<i>Ah.U.40/50</i>
6.	<i>Kaisorgugulal</i>	<i>Vatarakta</i> (~osteo arthritis)	<i>Sa.7/70</i>
7.	<i>Amrtadi kwatha, Patoladi kwatha, Laghmanjsthadi kwatha</i>	<i>Vatarakta</i> (~osteo arthritis)	<i>Sa.2/135, Sa.2/136, Sa.2/138</i>
8.	<i>Dashmula kwatha</i>	<i>Amavata</i> (~rheumatoid arthritis)	<i>H.S.21/24</i>

Abbreviation: C-Charaka Samhita, S- Sushruta Samhita, Su-Sutra Sthana, Ci-Chikitsa Sthana, Ka-Kashyap samhita, Ah-Astanga Hridaya, Sa- Sharangadhara samhita.H.S-Harit Samhita

Table 4. Medicinal uses of Guduchi in the various pathological condition of Diabetes

S.No.	Formulations	Indications	References
1.	<i>Vallipanchmula</i>	<i>Sarvameha</i> (~all types of diabetes)	<i>S.Su.38/73</i>
2.	<i>Guduchi kashaya</i>	<i>Sharpimeha</i> (~diabetes)	<i>S.Ci.11/9</i>
3.	<i>Guduchi swarasa</i>	<i>Prameha</i> (~diabetes)	<i>Ah.Ci.12/6</i>
4.	<i>Kushtadi churana</i>	<i>Sarvameha</i> (~diabetes)	<i>H.S.28/45</i>
5.	<i>Guduchi swarasa</i>	<i>Prameha</i> (~diabetes)	<i>Sa.1/7</i>
6.	<i>Chandraprabha vati</i>	<i>Prameha</i> (~diabetes)	<i>Sa.7/140</i>
7.	<i>Devdavadhiristha</i>	<i>Prameha</i> (~diabetes)	<i>Sa.10/55</i>
8.	<i>Guduchi kashaya</i>	<i>Medoroga</i> (~obesity)	<i>C.Su.21/22</i>

Abbreviation: C-Charaka Samhita, S- Sushruta Samhita, Su-Sutra Sthana, Ci-Chikitsa Sthana, Ka-Kashyap samhita, Ah-Astanga Hridaya, Sa- Sharangadhara samhita.H.S-Harit Samhita

Table 5. Medicinal uses of Guduchi in the various condition of dermatological disorder

S.No.	Formulations	Indications	References
1.	<i>Churna-Pradeha, Kusthadi churna</i>	<i>Kustha, Kilas</i> (~leprosy)	<i>C.Su.3/2, C.Su.3/9</i>
2.	<i>Vata kapha kushthaghana yoga, Mahakhadira ghrta</i>	<i>Kustha</i> (~leprosy)	<i>C.Ci.7/123</i>
3.	<i>Mustadi kwatha, Ghranthi visarpa</i>	<i>Visarpa</i> (~cellulites)	<i>C.Ci.21/58, C.Ci.21/130</i>
4.	<i>Mahatikta ghrta</i>	<i>Kustha</i> (~leprosy)	<i>C.Ci.7/145</i>
5.	<i>Guduchi swarasa</i>	<i>Sarvakushta</i> (~ all types of leprosy)	<i>S.Ci.10/14</i>
6.	<i>Aaraghavadhadi gana, Patoladi gana</i>	<i>Kustha</i> (~leprosy)	<i>Ah.Su.15/7, Ah.Su.15/15</i>
7.	<i>Duralabhadi kwatha</i>	<i>Visarpa</i> (~cellulites)	<i>Ah.Ci.18/6</i>
8.	<i>Nisadi kwatha, Guduchyadi lepa</i>	<i>Kustha</i> (~leprosy)	<i>Ah.Ci.19/39, Ah.Ci.19/86</i>
9.	<i>Devadarvadi kwatha</i>	<i>Ghranthi visarpa</i> (~cellulites)	<i>Ah.Ci.18/30</i>
10.	<i>Madhukadi taila</i>	<i>Visarpa</i> (~cellulites)	<i>Ka.Khi.14/24</i>
11.	<i>Patoladi kwatha</i>	<i>Visarpa</i> (~cellulites)	<i>Ka.Khi.14/39</i>
12.	<i>Vyaghatakadi kwatha, Picumandadi kwatha</i>	<i>Pitta visarpa</i> (~cellulites)	<i>Ka.Khi.14/40, Ka.Khi.14/41</i>
13.	<i>Dhatriadi ghrta, Dhatriadi kwatha</i>	<i>Charmadal</i> (~skin disorder)	<i>Ka.Khi.15/15, Ka.Khi.15/17</i>
14.	<i>Amrta kwatha</i>	<i>Visarpa</i> (~cellulites)	<i>Ka.Khi.14/70</i>
15.	<i>Amrtarista</i>	<i>Kapha visarpa</i> (~cellulites)	<i>Ka.Khi.14/74</i>
16.	<i>Dhatari ghrta</i>	<i>Charmadala</i> (~skin disorder)	<i>Ka.Khi.15/16</i>
17.	<i>Guduchyadi kwatha</i>	<i>Kushta</i> (~leprosy)	<i>H.S.39/28</i>
18.	<i>Manjsthadi kwatha</i>	<i>Sarvakushta</i> (~leprosy)	<i>Sa.2/139</i>
19.	<i>Amrtaghrta</i>	<i>Kustha</i> (~leprosy)	<i>Sa.9/44</i>

Abbreviation: C-Charaka Samhita, Su-Sutra Sthana, Vi-Viman Sthana, Ci-Chikitsa Sthana, Ka-Kashyap samhita, Ah-Astanga Hridaya, Sa- Sharangadhara samhita.H.S-Harit Samhita

Table 6. Medicinal uses of Guduchi in the various pathological condition of hepatic disorder

Sl.no.	Formulations	Indications	References
1.	<i>Guduchi swarasa</i>	<i>Halimaka</i> (~complicated - hepatitis)	<i>C.Ci.16/134</i>
2.	<i>Guduchi swarasa</i>	<i>Halimaka</i> (~complicated hepatitis)	<i>Ah.Ci.16/43</i>
3.	<i>Guduchyadi ghrta</i>	<i>Halimaka</i> (~complicated hepatitis)	<i>Ka.Ci.5/3</i>
4.	<i>Falatrikadi kwatha</i>	<i>Kamala</i> (~jaundice)	<i>Sa.2/77</i>

Abbreviation: Ka-Kashyap samhita, Ah-Astanga Hridaya, Sa- Sharangadhara samhita, Ci-Chikitsa Sthana.

Table 7. Various therapeutic uses of Guduchi mentioned in Charaka samhita (Agnivesh, 2014)

S.No.	Mentioned In	Indication	Reference
1.	<i>Niruhavasti</i>	<i>Udavarta</i> (~abdominal distension)	<i>C.Su.2/12</i>
2.	<i>Triptighana Mahakashaya</i>	(~used in thrust)	<i>C.Su.4/11</i>
3.	<i>Stanyajanana Mahakashaya</i>	(~increases milk production)	<i>C.Su.4/18</i>
4.	<i>Trisnaniग्रहाना Mahakashaya</i>	(~used to remove thrust)	<i>C.Su.4/29</i>
5.	<i>Dahaprasaman Mahakashaya</i>	(~used in burning sensation)	<i>C.Su.4/41</i>
6.	<i>Vayahsthapana Mahakashaya</i>	(~used as anti-aging)	<i>C.Su.4/50</i>
7.	<i>Nadisweda dravaya</i>	<i>Swedana</i> (~sweating)	<i>C.Su.14/30</i>
8.	<i>Tikta Sakanda</i>	(~bitter)	<i>C.Vi.8/143</i>
9.	<i>Parisheka sweda</i>	<i>Rajayashma</i> (~tuberculosis)	<i>C.Ci.8/72</i>
10.	<i>Vata Pitta-Sotha, Punarnawaadayarista</i>	<i>Sotha</i> (~oedema)	<i>C.Ci.12/25</i>
11.	<i>Panchama kshara</i>	<i>Gharani</i> (~irritable bowel syndrome)	<i>C.Ci.15/190</i>
12.	<i>Prataha kalin yoga</i>	<i>Pandu</i> (~anaemia)	<i>C.Ci.16/63</i>
13.	<i>Nidigadhadi yoga, Dasmuladi yoga</i>	<i>Hicca</i> , <i>swasa</i> (~hiccup)	<i>C.Ci.17/93</i>
14.	<i>Kantakari ghrta Guduchyadi ghrta</i>	<i>Kasa</i> (~cough)	<i>C.Ci.18/35, C.Ci.18/160</i>
15.	<i>Bhramaharasayana Chayavanaprash</i>	<i>Rasayana</i> (~adjuvant)	<i>C.Ci.1-1/58, C.Ci.1-1/63</i>
16.	<i>Gandahastinamaka agadha</i>	<i>Visha</i> (~poison)	<i>C.Ci.23/70</i>
17.	<i>Amritadi varti</i>	<i>Netra vyadhi</i> (~eye disease)	<i>C.Ci.26/242</i>

Abbreviation: C-Charaka Samhita, Su-Sutra Sthana, Vi-Viman Sthana, Ci-Chikitsa Sthana.

Table 8. Various therapeutic uses of Guduchi mentioned in Sushruta Samhita (Sushruta, 2008)

S.No.	Mentioned In	Indication	Reference
1.	<i>Atidagadha</i>	<i>Aganikarama</i> (~thermal cautery)	<i>S.Su.12/26</i>
2.	<i>Sivana karma</i>	<i>Asthavidhsastra karma</i> (~eight surgical procedure)	<i>S.Su.25/21</i>
3.	<i>Aaraghwadhadi gana</i>	<i>Varana sodhana</i> (~wound healing)	<i>S.Su.38/6</i>
4.	<i>Shyamadi gana</i>	<i>Udavaraata</i> (~abdominal distension)	<i>S.Su.38/29</i>
5.	<i>Tikta varga</i>	(~bitter)	<i>S.Su.42/22</i>
6.	<i>Kapha vyadhi</i>	<i>Virechana</i> (~purgative)	<i>S.Su.44/5</i>
7.	<i>Shaka varga</i>	(~bitter)	<i>S.Su.46/262.</i>
8.	<i>Kaphaja varana, Varanaropana</i>	(~wound healing)	<i>S.Ci.1/115</i> <i>S.Ci.2/74</i>
9.	<i>Guduchitakra kalpa</i>	<i>Arsa</i> (~piles)	<i>S.Ci.6/13</i>
10.	<i>Guduchi kashaya</i>	<i>Mahakushta</i> (~urinary incontinence)	<i>S.Ci.10/4</i>
11.	<i>Guduchiadi taila</i>	<i>Mudhagarbha</i> (~false- presentation)	<i>S.Ci.15/44</i>
12.	<i>Guduchiadi lepa</i>	<i>Valamik</i> (~malignant growth)	<i>S.Ci.20/50</i>
13.	<i>Guduchi kashaya</i>	<i>Rasayana</i> (~adjuvant)	<i>S.Ci.27/7</i>
14.	<i>Tripaladi taila</i>	<i>Anuvasana vasti</i> (~oil- enema)	<i>S.Ci.37/34</i>
15.	<i>Guduchi kashaya</i>	<i>Kukunaka</i> (~ophthalmic neonatorum)	<i>S.U.19/13</i>
16.	<i>Patoladi churna, Pittapachaka kwatha</i>	<i>Amaatisara</i> (~diarrhoea)	<i>S.U.40/50</i>
17.	<i>Guduchayadi ghrta</i>	<i>Lagharaka</i> (~complicated anaemia)	<i>S.U.44/40</i>
18.	<i>Guduchi kashaya</i>	<i>Sannipataja chardi</i> (~ vomiting)	<i>S.U.49/27</i>

Abbreviation: S-Sushruta Samhita, Su-Sutra Sthana, Ci-Chikitsa Sthana, U-Uttartantra.

Table 9. Various therapeutic uses of Guduchi mentioned in Ashtanga Hridaya (Vagbhata, 2014)

S.No.	Mentioned In	Indication	Reference
1.	<i>Triphaladi churana</i>	<i>Apatarpana</i> (~emaciation)	<i>Ah.Su.14/22</i>
2.	<i>Guduchyadi gana</i>	<i>Kapha-pitta roga</i>	<i>Ah.Su.15/16</i>
3.	<i>Nagaradi kwatha</i>	<i>Rakatasarava</i> (~ bleeding disorder)	<i>Ah.Sa.2/7</i>
4.	<i>Guduchyadi ghrta, Vasadi ghrta</i>	<i>Kasa</i> (~cough)	<i>Ah.Ci.3/3, Ah.Ci.3/164</i>
5.	<i>Drakshadi swarasa</i>	<i>Chardi</i> (~vomiting)	<i>Ah.Ci.6/14</i>
6.	<i>Guduchyadi swarasa</i>	<i>Madatayaa</i> (~alcoholic disorder)	<i>Ah.Ci.7/25</i>
7.	<i>Dhavadi kwatha</i>	<i>Mutraghata</i> (~ urine incontinence)	<i>Ah.Ci.11/12</i>
8.	<i>Vasadi kwatha</i>	<i>Pandu</i> (~anaemia)	<i>Ah.Ci.16/13</i>
9.	<i>Baladi kwatha</i>	<i>Vasti</i> (~enema)	<i>Ah.ka.4/1</i>
10.	<i>Dashmuladi kwatha</i>	<i>Anuvasana vasti</i> (~oil enema)	<i>Ah.ka.4/55</i>
11.	<i>Patoladi kwatha</i>	<i>Vartama roga</i> (~eye disorder)	<i>Ah.U.9/27</i>
12.	<i>Guduchyadi ghrta, Chudradi kwatha</i>	<i>Mukaha roga</i> (~ mouth disorder)	<i>Ah.U.22/6, Ah.U.22/97</i>
13.	<i>Guduchayadi kwatha</i>	<i>Galaganda</i> (~goiter)	<i>Ah.U.22/68</i>
14.	<i>Guduchayadi kwatha</i>	<i>Mukaha arabuda</i> (~ mouth cancer)	<i>Ah.U.22/78</i>
15.	<i>Kashamaryadi ghrta</i>	<i>Vattaja yonivyapada</i> (~gynaecological disorder)	<i>Ah.U.34/28</i>
16.	<i>Guduchyadi kwatha</i>	<i>Yoniprakshalana</i> (~gynaecological disorder)	<i>Ah.U.34/33</i>
17.	<i>Nishothadi lepa</i>	<i>Visha</i> (~poison)	<i>Ah.U.38/20</i>
18.	<i>Guduchi swarasa</i>	<i>Medhya rasayana</i> (~brain adjuvant)	<i>Ah.U.39/44</i>
19.	<i>Shunthadi rasayana</i>	<i>Vyadahijaravimukatam</i> (~increases immunity)	<i>Ah.U.39/104</i>

Abbreviation: Ah-Astanga Hridaya , Su-Sutra Sthana, Ci-Chikitsa Sthana, K-Kalpa sthana, U-Uttartantra.

Table 10. Various therapeutic uses of Guduchi mentioned in in Kashyap Samhita (Tiwari, 1996)

S.No.	Mentioned In	Indication	Reference
1.	Pathadi kwatha	Raksoghna(~evil spirit)	Ka.Su.19/13
2.	Shaishuka ghrita	Gulma(~abdominal lump)	Ka.Ci.8/27
3.	Lamamajjakadi kwatha	Madataya(~alcoholic disorder)	Ka.Ci.16/46
4.	Bala tail, Satavaryadi tail	Dhatri(~feeding mother)	Ka.Ci.18/15, Ka.Ci.18/39
5.	Triphaladi kwatha	Pachana(~digestion)	Ka.Ka.8/127
6.	Lodhradi kwatha	Netra roga(~eye disease)	Ka.Khi.13/86
7.	Palasadi tail	Shotha(~odema)	Ka.Khi.17/91
8.	Traivitra yoga	Dustaprajata(~postpartum complication)	Ka.Ci.3/14
9.	Atarusakadi kwatha	Abhisyanada(~cojuctivities)	Ka.Khi.13/28
10.	Mandukaparni rasayana	Rasayana(~adjuvant)	Ka.Ci.7/14
11.	Bala tail	Dhatari(~feeding mother)	Ka.Ci.18/26
12.	Satavariadi kwatha, Jivakadi ghrita, Satavariadi lepa	Sotha(~odema)	Ka.Khi.17/49

Abbreviation: ka-kashyap, Ci-Chikitsa Sthana, K-Kalpa sthana, Khi-Khil sthana

Table 11. Various therapeutic uses of Guduchi mentioned in Bhela Samhita (Maharshi Bhel, 2009)

S.No.	Mentioned In	Indication	Reference
1.	Kalyanaka ghrit	Suryavarta(~headache)	Bh.Ci.21/11
2.	Guduchyadi swarasa	Slesma panatyaya (~alcoholic disorder)	Bh.Ci.28/86
3.	Patola kwatha	Niruhavasti (~medicated water enema)	Bh.Si.7/10
4.	Rasayana vasti	Rasayana (~adjuvant)	Bh.Si.8/38

Abbreviation: B.Sa.- Bhela Samhita, Ci-Chikitsa Sthana, Si-Siddhi sthana, K-Kalpa sthana

Table 12. Various therapeutic uses of Guduchi mentioned in Harita Samhita (Harita, 2009)

S.No.	Mentioned In	Indication	Reference
1.	Shunihadi kwatha	Jwaratisara(~fever-diarrhoea)	H.S.3/13
2.	Pathadi kwatha, Pacnhamuli kwatha	Atisara(~diarrhoea)	H.S.3/14, H.S.3/17
3.	Shalmulimula kalka	Pittatisara(~diarrhoea)	H.S.3/47
4.	Darunagara kwatha	Ghrani(~irritable bowel syndrome)	H.S.3/92
5.	Chyavanaprasha, Jivanatayadi ghrita, Parasara ghrita	kshayaroga(~emaciation)	H.S.9/48, H.S.9/78, H.S.9/88
6.	Amritaprasha ghrita, Guduchyadi churana	Rajayashama(~tuberculosis)	H.S.9/119, H.S.9/130
7.	Mridvikadi ghrita	Raktapitta(~bleeding disorder)	H.S.10/52
8.	Khanadakadya rasayana	Raktapitta(~bleeding disorder)	H.S.10/69
9.	Amritadi kwatha, Bhallatakavleha	Arsha(~piles)	H.S.11/29, H.S.11/80
10.	Guduchyadi kwatha	Trishana(~ thrust)	H.S.13/13
11.	Guduchyadi kwatha	Amalapitta(~ hyper-acidity)	H.S.24/6
12.	Guduchyadi kalka	Shopha(~inflammation)	H.S.25/14
13.	Guduchyadi churana	Vajikarana(~aphrodisiac)	H.S.47/14
14.	Guduchyadi ghrita	Balaroga(~child disease)	H.S.54/22

Abbreviation: H.Sa.- Harit Samhita

Table 13. Various therapeutic uses of Guduchi mentioned in Sharangadhara Samhita (Sharangdhara, 2006)

S.No.	Mentioned In	Indication	Reference
1.	Guduchyadi kwatha, Nagaradi kwatha	Jwaratisara(~fever-diarrhoea)	Sa.2/61, Sa.2/63
2.	Chaturbdra kwatha	Samghrani(~irritable bowel syndrome)	Sa.2/74
3.	Punarnawadi kwatha	Pandu(~anaemia)	Sa.2/78
4.	Vilwadi kwatha	Chardi(~vomiting)	Sa.2/84
5.	Punarnawadi kwatha	Sotha(~odema)	Sa.2/120
6.	Rasnadi kwatha	Antravidhi(~intestinal lump)	Sa.2/125
7.	Pathyadisadanga kwatha	Shiroroga(~headach)	Sa.2/145
8.	Vasadi kwatha, Amrtadi kwatha	Netra roga(~eye disease)	Sa.2/148, Sa.2/150
9.	Musalayadi churna	Klibata(~infertility)	Sa.6/159
10.	Kantakari avaleha	Sawsa(~asthma)	Sa.8/6
11.	Chayavanprash avaleha	kshatkina(~lungs abnormality)	Sa.8/10
12.	Laghufalaghrita	Yoniroga(~gynaecological disorder)	Sa.9/88
13.	Nilikadhya tail	Keshya(~hair strengthen)	Sa.9/149
14.	Loknathrasa	Daha(~burning sensation)	Sa.12/74
15.	Amritarnava rasa	Kasa(~cough)	Sa.12/163
16.	Ghrani kapat rasa	Ghrani(~irritable bowel syndrome)	Sa.12/247
17.	Lauha rasayana	Rasayana(~adjuvant)	Sa.12/287

Abbreviation: Sa-Sharangadhar Samhita.

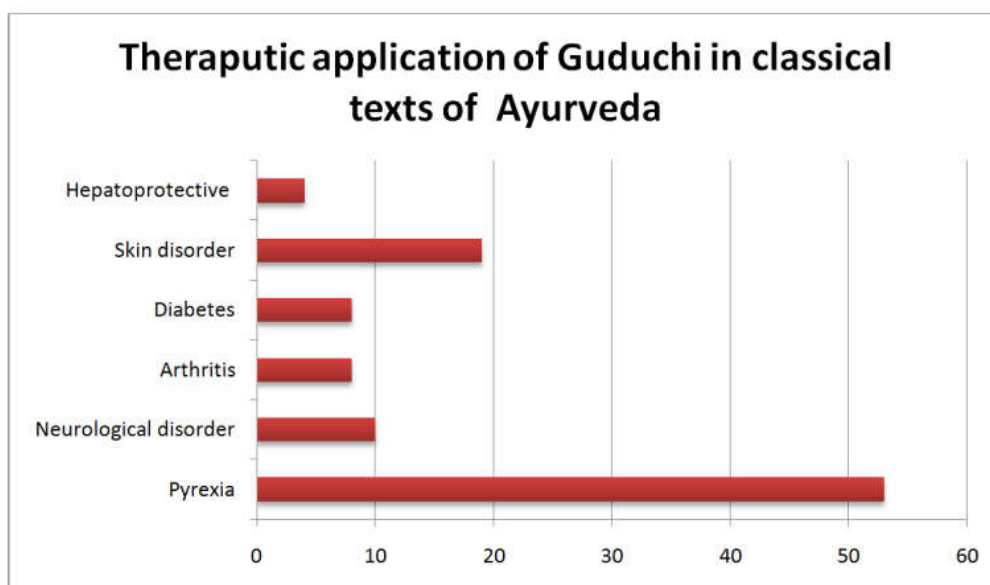


Figure 1. Analysis on therapeutic application of *Guduchi* in the classical texts of Ayurveda

DISCUSSION

Guduchi is considered one of the best *Rasayana* and is remarkable in its potent adaptability. The alcoholic and aqueous extracts of *T. cordifolia* have been tested successfully for their immunomodulatory activity (Mor and Pai, 2011). It acts in various infectious diseases through its *Amapachana*, *Agnideepana*, *Jwaraghna* and *Balya* properties (Agnivesh, 2014). The *Ama* (~undigested food material) which is released into circulation by the infectious agent and the resultant *Agnimandya* (~indigestion) can be managed with the *Amapachana* and *Agnideepana* properties of *Guduchi*. The *Jwaraghna* property of the plant helps in alleviating the general description of infectious diseases like fever, cough (Singh *et al.*, 2005). The *Balya* and *Rasayana* properties of the plant helps during the post infectious phase in salvage the strength of the body (Agnivesh, 2014). Present review highlights the major pharmacological areas where the plant *Guduchi* possess significant role as per ancient classics (Figure-1). Potential therapeutic properties reported by modern scientific research includes antipyretic, anti-inflammatory, antioxidant, anti-allergic, antispasmodic, adaptogenic, hypoglycemic, anti-stress, anti-rheumatic, anti-malarial, hepato-protective and immuno-modulatory activity (Jitendra Mittal *et al.*, 2014; Vipin Kumar *et al.*, 2013; Meena *et al.*, 2010). Till different areas of therapeutic application, mentioned in ancient classical texts entail to be explored.

Conclusion

The historical evidence confirms the *Tinospora cordifolia* is a competent plant as multipurpose resource for life. Different active compounds are demonstrating the varied adaptability of the plant. With so much to offer to the scientific world of medicine, the plant *Tinospora* truly acts as an incredible source. The present review highlights the various therapeutic uses of *Tinospora cordifolia* mentioned by great *Ayurveda* sages and recommends that there is huge scope of further scientific research on various therapeutic aspect of this important medicinal plant.

REFERENCES

- Agnivesh. 2014., Charaka Samhita (Chakrapani Commentary). Jadavaji Trikamji Acharya, editor. Sutra Sthana chapter no-4 to Siddhithana sthana capter no-12, 1 st ed. Chaukhamba Sanskrit Sansthan, Varanasi.
- Bhandari C. Vanaushadhi Chandrodaya. 2006. 1st ed., Vol. 3, Chaukhamba Sanskrit Sansthan, Varanasi, pp 86.
- Harit. 2009. Harit Samhita. Pt. Hariprasad Tripathi editor. Reprinted ed. Harit Chikitsa Sthana chapter no.2, verse no-71 to Harit Samita chapter no.58, verse no.11., Chaukhamba Krishanadas academy, Varanasi.
- Jitendra Mittal, Madan Mohan Sharma, 2014. *Tinospora cordifolia*: a multipurpose medicinal plant-A review, *Journal of Medicinal Plants Studies*, (2)2: 32-47.
- Kinkar Shobha B. and Patil Kishor Gopal., 2015. Antidiabetic activity of *Tinospora cordifolia* (fam: menispermaceae) in alloxan treated albino rats, *J Appl Res.*, 1 (5):316-319.
- Maharshi Bhel., 2009. Bhelsamhita. edited by Shree Abhay Katyayan. 1st ed., Chaukhamba surbharati prakashana, Varanasi.
- Meena, AK., Arjun Singh, P Panda, Sudip Mishra, MM Rao, 2010. *Tinospora cordifolia*: Its Bioactivities and Evaluation of Physicochemical Properties, *Int. J. Pharmacognosy and Phytochem. Res.*, 2(2): 50-55
- More P. and Pai K. 2011. Immunomodulatory effects of *Tinospora cordifolia* (*Guduchi*) on macrophage activation, *Biology and Medicine*, 3 (2): 134-140.
- Pandey G. 2002. *Dravyaguna Vijnana*, 2nd ed., Vol. 1, Krishnadas Academy publisher, Varanasi, pp 697-710.
- Sharangdhara, 2006. Sharangdhar Samhita With commentaries Aadhamalla and Kasiramas Gudarth Dipika, edited by Pt. Parashuram Shastri Vidyasagar, Reprint ed., Chaukhambha Surbharati Prakashana, Varanasi.

- Singh N, Singh SM, Shrivastava P. 2005. Immunomodulatory and antitumor actions of medicinal plant *Tinospora cordifolia* are mediated through activation of tumour associated macrophages. *Immunopharmacol. Immunotoxicol.*, 26:145–62.
- Sushruta, 2008. Sushruta Samhita, With commentary Nibandhsangraha of Dalhanacharya, edited by Acharya Yadavaji Trikamji, Reprint ed., Chaukhamba surbharti Prakashan, Varanasi.
- Tiwari Premvati. 1996. Kashyap Samhita or vriddhajivakiya tantra., 1st ed., Chaukhamba Visvabharati, Varanasi.
- Vagbhata, 2014. Ashtanga Hridaya commentary by Arunadutta. Sutra Sthana. Reprint ed. Chaukhamba Sanskrit Sansthan, Varanasi.
- Vipin Kumar, Pankaj K Modi, K. K. Saxena, 2013. Exploration of Hepatoprotective Activity of Aqueous extract of *Tinospora cordifolia* - an experimental study, *Asian J Pharm Clin Res*, 6(1): 87-91
