



Review Article

A Critical Review of *Kantakari (Solanum surattense* Burm. f.) from
Bhavaprakasha Samhita

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ABSTRACT:

Exploring a medicinal plant with its diverse uses can provide a basis for the better understanding. It is possible when the literary information on a medicinal plant along with its numerous formulations is compiled and studied. The best source for such activity is a compendium known as Bhavaprakasha Samhita- a link between medicinal plant, formulations and indications. In the present context, the literature was referred and studied critically from Bhavaprakasha Samhita. After analyzing, it was found that *Nidigdhika*, *Kantikari*, *Kshudra*, *Dusparsha*, *Vyaghri* are some synonyms of *Kantakari*. It have *Tikta* (Bitter), *Katu* (Pungent) *Rasa*, *Laghu* (Light), *Ruksha* (Dry), *Ushna* (Hot), *Sara* (Increases intestinal activity), *Tikshna* (Irritable) *guna*, *Katu* in *Vipaka* and *Ushna Veerya*. Having indications on *Kasa* (Cough), *Shwasa* (Asthma), *Pratishyaya* (Upper respiratory infection), *Jwara* (Fever), *Angamarda* (Bodyache), *Parshwapida* (Pain in upper abdomen), etc. In this article, an effort was made to review the importance and utility of the drug *Kantakari*. Total 22 references were found. Most of the formulations are in the form of decoction suggesting its more bioactivity in water extract. *Kantakari* have maximum number of references of parts used as roots indicating that most of its active constituents are present in roots. The claimed actions in classical text of Bhavaprakasha has also been supported by modern researches.

KEY WORDS: Bhavaprakasha Samhita, *Kantakari*, *Solanum surattense* Burm. f.

INTRODUCTION:

Bhavaprakasha Samhita is one of the classical treatises among *Laghatrayee* (The lesser triad of Ayurveda). It has its unique contribution in understanding the properties and applications of various herbs used in Ayurveda. The compendium offers the knowledge on all parts of Ayurveda along with the details of the herbs used in practice. Thus the part of the Samhita dedicated to description on the herbs is also known as Bhavaprakasha Nighantu. This Samhita is considered as mega bridge between the old treatises (*Bruhatraee*) and new thoughts and application regarding herbs. The Ayurvedic literature of medieval period suggests the use of *Kantakari (Solanum surattense* Burm. f.), a

prickly diffused herb, as a *Pratinidhi Dravya* for *Bharangi (Clerodendrum serratum* (Linn.) Moon). Drug substitution reference has been mentioned in Ayurveda as *Abhava pratinidhi dravya*. It is one of the unique concept mentioned in Ayurvedic texts like *Yogratnakar*, *Bhavaprakasha* and *Bheshajya Ratnavali*.^[1,2,3] *Bhavaprakasha* was the first who mentioned this concept in 16 th century A.D. and then repeated subsequently in forthcoming Ayurvedic literature. For substitution, each drug is identified and characterized on the basis of its *rasapanchaka* attributes i.e. *Rasa* (taste), *Guna* (properties), *Veerya* (potency), *Vipaka* (metabolism), *Prabhava* (specific action) and

Karma (pharmacological action).^[2,3] Exploring a medicinal plant with its diverse uses can provide a basis for the better understanding. It is possible when the literary information on a medicinal plant along with its numerous formulations is compiled and studied. The best source for such activity is a compendium known as *Bhavaprakasha Samhita* - a link between medicinal plant, formulations and indications. In the present context, the literature was referred and studied critically from *Bhavaprakasha Samhita*, for the drug *Kantakari*.

MATERIALS:

1. *Sartha Bhavaprakasha* of Ayurvedacharya P.G.Nanal Vaidya, in print form, 2th ed, Marathi Commentary, published by Chaukhamba Sanskrit Sansthan, Varanasi, reprint 2016.
2. *Bhavaprakash. Bhavaprakasha with Vidyotini Hindi Commentary*. Ed. Mishra Brahma Shankar. Vaishya Rupalalji. 7th ed. Chaukhamba Sanskrit Sansthan; Varanasi; 1990.

METHODS:

1. References of *Kantakari* in *Bhavaprakasha Samhita* was collected and compiled.
2. Formulations of *Kantakari* prescribed for the treatment of various diseases was collected.
3. Tabulation of total number of formulations mentioned for various diseases was done.
4. Literary analysis of the medicinal plant, synonyms, parts used, formulations and indications was comprehense.

OBSERVATION AND RESULTS:

Classification:

Kantakari is one of the ingredient of *Laghupanchamoola* and *Dashaamoola*. *Kantakari* has been mentioned as *Dashamoola*, *Laghupanchamoola*, *Varunadi gana*. Reference of *Kantakari* has found in *Guduchyadi Varga*, *Mishraka Varga*, *Varunadi Gana*.

Synonyms:

Various synonyms mentioned in *Bhavaprakasha Samhita (Purva Khanda)* are *Kantakari*, *Dusparsha*, *Kantalika*, *Kantakini*,

Dhavani, *Kshudradwaya*, *Vyaghri*, *Bruhatidwaya*, *Nidigdhika*, *Kantakariyugma*, *Kshudra*. The plant is fully covered with prickles which is its characteristic feature and it is supported by the synonyms like *Kantakarika*, *Kantali*, *Kshudrakantaka*, *Bahukantaka*, *Kantakini* etc. The synonym *Chitrphala* can be correlated with the appearance of unripe fruit variegated with green and white strips, ripe fruits show different yellow and white strips.

Ayurvedic properties: Almost all the Nighantus mentioned *Kantakari* as a *Tikta* (Bitter), *Katu* (Pungent) *rasa*, *Ushna virya* (Hot potency) and *Laghu* (Light), *Ruksha* (Dry), *Ushna* (Hot), *Sara* (increases intestinal motility), *Tikshna* (irritating) *gunatmaka dravya*. It is having *ushna veerya*, *katu vipaka* also. Synonym *Kasaghni* is mentioned in most of the Nighantus. It is a *Kapha* and *Vata shamaka dravya*. The drug has been stated to treat majority of respiratory ailments.

Indication:

Therapeutically *Kantakari* has been indicated in *Kasa*, *Shwasa*, *Jwara*, *Pinasa*, *Parshwashoola* etc. According to classics, we can use root of *Kantakari* when mentioned otherwise *panchanga* can be taken while preparing formulations. *Kantakari* - *Solanum xanthocarpum* Schrad. & Wendl. belongs to Solanaceae family. *Pachani* (Digests undigested food material), *Dipana* (Increases digestive fire), *Kasahara* (Anti-tussive), *Kapha-shwasahara* (Anti-asthmatic), *Jwarahara* (Anti-pyretic), *Anilnashaka* (Stabilizes vata), *Pinasa nashaka* (Lowers upper respiratory tract infection), *Parshwapida* (pain in upper abdomen), *Kruminashaka* (Anti-bacterial), *Hridayaroganashaka* (Heart diseases).⁽⁶⁾ *Karma*: *Kasa* (Cough), *Shwasa* (Asthma), *Pratishyaya* (Upper respiratory infection), *Jwara* (Fever), *Angamarda* (Bodyache), *Parshwapida* (Pain in upper abdomen), *Hridayaroga* (Heart diseases), *Admana* (Bloating), *Vibandha* (Constipation), *Ashmari* (Renal calculus), *Vamananashaka* (Anti-emetic), *Shotha* (Inflammation), *Hikka* (Hiccough), *Mutrakruchha* (Difficulty in urination).⁽⁷⁾

Formulations of *Kantakari* mentioned in *Bhavaprakasha Samhita*: Various formulations

like *Kwatha*, *Swarasa*, *Asava*, *Taila*, *Churna*, *Peya*, *Yavagu*, *Ghruta*, *Avaleha*, *Kalka*, *Manda*, *Ksheera*, *Kheerapaka* etc has mentioned but *Kwatha* formulation has been mentioned maximum times. It may be because maximum

phytoconstituents are soluble in water which makes the bioavailability of the phtoconstituents easy. For reference all the above mentioned information has been presented in tabular form below.

Table No. 1: References of Kantakari in Bhavaprakasha Samhita (2)

Sr. No.	Adhyayay	References	Name of the Drug	Useful part	Uses/Action/Rogadhikar/ Indication/Therapeutic Process/ Group	Visishtayoga/ Amayikaprayoga/ Context/Formulations
1.	<i>Mishra Prakarana</i>	B.P.p.k. 4/37,38,39,40,41,42.	<i>Kantakari</i>	Root	<i>Deepana, Pachana, Kasa, Shwasa, Jwara, Kapha-Vata shaman, Pinasa, Parswashoola, Hridayaroga</i>	<i>Guduchyadi Varga</i>
2.	<i>Mishra Prakarana</i>	B.P.p.k. 4/48	<i>Dashamoola</i>	Root	<i>Tridoshaghna, Shwasa, Kasa, Shiroruja, Tandra, Shotha, Jwara, Aanaha, Parshwapida, Aruchinashaka.</i>	<i>Mishraka Varga</i>
3.	<i>Jwara Chikitsa Prakarana</i>	B.P.m.k. 1/403	<i>Kantakari, Laghu-panchamoola</i>	-	<i>Vataja Jwara, Kasa, Shwasa, Hikka</i>	<i>Kwatha, Peya</i>
4.	<i>Jwara Chikitsa Prakarana</i>	B.P.m.k. 1/487	<i>Dashamooli</i>	Root	<i>Vata-Kaphaja Jwara, Nidradhikya, Parswashoola, Shwasa, Kasa</i>	<i>Dashamooli Kashaya</i>
5.	<i>Jwara Chikitsa Prakarana</i>	B.P.m.k. 1/506	<i>Kantakari</i>	-	<i>Pitta-Kaphaja Jwara Yukta Daha, Trushna, Aruchi, Chardi, Kasa, Shoola.</i>	<i>Kantakaryadi Kwatha</i>
6.	<i>Jwara Chikitsa Prakarana</i>	B.P.m.k. 1/652	<i>Dashamooli</i>	Root	<i>Sannipataja Jwara, Kasa, Shwasa</i>	<i>Dwadashanga Kwatha</i>
7.	<i>Jwara Chikitsa Prakarana</i>	B.P.m.k. 1/655	<i>Dashamooli</i>	Root	<i>Sannipataja Jwara, Shitaja Jwara, Kasa, Shwasa, Hridayapida, Parshwashoola, Hikka, Vami, Udararoga.</i>	<i>Ashtadashanga Kwatha, Shitabhanji Rasa</i>
8.	<i>Jwara Chikitsa Prakarana</i>	B.P.m.k. 1/688	<i>Dashamooli</i>	Root	<i>Tandra, Pralapa, Kasa, Aruchi, Daha, Moha, Shwasa, Tridoshaja, Sannipataja Jwara.</i>	<i>Dwitiya Ashtadashanga Kwatha</i>
9.	<i>Jwara Chikitsa Prakarana</i>	B.P.m.k. 1/895	<i>Nidigdihika</i>	-	<i>Jeerna Jwara, Arochaka, Kasa, Shoola, Shwasa, Agnimandya, Ardita, Pinasa.</i>	<i>Trikantakadi Kwatha</i>
10.	<i>Jwara Chikitsa Prakarana</i>	B.P.m.k. 1/904	<i>Kantakari</i>	Root	<i>Jeerna Jwara, Aruchi, Kasa, Shwasa, Shotha</i>	<i>Ashtadashanga Kwatha</i>
11.	<i>Atisara Chikitsa Prakarana</i>	B.P.m.k. 2/81	<i>Panchamooli</i>	Root	<i>Sarvaja Atisara, Jwara, Vami, Udarshoola, Shwasa, Kasa, Pittaja Atisara</i>	<i>Panchamoolyadi Kwatha</i>
12.	<i>Kasa Chikitsa Prakarana</i>	B.P.m.k. 12/21	<i>Dashamoola</i>	Root	<i>Kasa, Shwasa, Hikka, Vataja Kasa</i>	<i>Kwatha, Yavagu</i>
13.	<i>Kasa Chikitsa Prakarana</i>	B.P.m.k. 12/24	<i>Kantakari Yugam</i>	-	<i>Pittaja Kasa</i>	<i>Kwatha</i>
14.	<i>Kasa Chikitsa Prakarana</i>	B.P.m.k. 12/25	<i>Kantakari</i>	-	<i>Kaphaja Kasa</i>	<i>Kwatha</i>
15.	<i>Kasa Chikitsa Prakarana</i>	B.P.m.k. 12/43	<i>Kantakari</i>	-	<i>Samanya Kasa, Kshataja Kasa, Sarvaja Kasa</i>	<i>Kwatha</i>
16.	<i>Kasa Chikitsa Prakarana</i>	B.P.m.k. 12/48	<i>Kantakari</i>	Panchanga	<i>Hikka, Kasa, Shwasa.</i>	<i>Kantakaryavaleha</i>

Sr. No.	Adhyayay	References	Name of the Drug	Useful part	Uses/Action/Rogadhikar/ Indication/Therapeutic Process/ Group	Visishtayoga/ Amayikaprayoga/ Context/Formulations
17.	<i>Shwasa Chikitsa Prakarana</i>	B.P.m.k. 14/35,37	<i>Dashamoola</i>	Root	<i>Shwasa, Hridyagraha, Parswashoola, Hikka, Kasanashaka.</i>	<i>Dashamooladi Kwatha, Yawagu</i>
18.	<i>Swarabheda Chikitsa Prakarana</i>	B.P.m.k. 15/11	<i>Nidigdhika, Dashmoola</i>	Root	<i>Swarabheda, Pratishyayay, Kasa, Shwasa, Agnimandya, Gulma, Prameha, Galaroga, Anaha, Mutrakrucha, Granthi, Arbuda.</i>	<i>Nidigdhikavaleha</i>
19.	<i>Unmada Chikitsa Prakarana</i>	B.P.m.k. 21/55	<i>Dashamoola</i>	Root	<i>Sarvacheto Vikaranashaka, Apasmara, Mahonmada, Mandagni, Jwara, Kasa, Vatarakta, Pratishyaya, Shosha, Karshya, Mutrakruchha, Katishoola, Visarpa, Pandu, Kandu, Garavisha, Bhrama, Mada, Murcha, Medha-Smrti Prada</i>	<i>Mahachetasa Ghruta</i>
20.	<i>Vatavyadhi Chikitsa Prakarana</i>	B.P.m.k. 23/169	<i>Dashamoola</i>	Root	<i>Akshepaka, Vatavyadhi, Hikka, Shwasa, Adhimantha, Gulma, Kasa</i>	<i>Taila</i>
21.	<i>Medorog Chikitsa Prakarana</i>	B.P.m.k. 36/52	<i>Bruhatyo</i>	-	<i>Santarpanotha Vyadhi Nasahaka, Prameha, Mudhavata, Kushtha, Arsha, Kamla, Pleeha, Panduroga, Shotha, Mutrakruccha, Arochaka, Hrudyaroga, Kshaya, Kasa, Shwasa, Galagraha, Krumi, Sangrahani, Shwitra, Sthoulya, Agni-Buddhi-Smrti Vardhak</i>	<i>Vyoshadi Saktu</i>
22.	<i>Balroga Chikitsa Prakarana</i>	B.P.m.k. 65/159	<i>Vyaghri</i>	Fruit	<i>Kasa</i>	<i>Avaleha Chatan</i>

DISCUSSION:

The Synonyms of *Kantakari* with meaning is as follows. Most repeatedly used are *Katakari, Duhsparsa, Kshudra, Kasaghni, Nidigdhika* and *Vyaghri*. *Kantakari* (Thorny), *Dusparsha* (Difficult to touch), *Dhavani* (Stragglings), *Vyaghri* (Promotes voice), *Nidigdhika* (Growing fastly), *Kshudra* (having small fruits)⁽⁵⁾. The plant is fully covered with prickles which is its characteristic feature and it is supported by the synonyms like *Kantakarika, Kantali, Kshudra-kantaka, Bahukantaka, Kantakini*. The synonym *Chitrphala* can be correlated with the appearance of unripe fruit variegated with green and white strips, ripe fruits show different yellow and white strips.

On analysis of drug properties, indicates that the *Dravyaguna* qualities of the drug i.e. *Rasa* (Taste), *Guna* (Properties), *Vipaka* (Stage of digestion), *Veerya* (potency) and *Karma* (Actions) was mentioned clearly. On analyzing their Ayurvedic pharmacology (*Dravyaguna*

properties), findings shows that both the drugs possess *katu* and *tikta rasa*, *Kantakari* is *tikta rasa* dominant drug. Along with this, drug possess *laghu, ruksha* and *ushna guna*. *Kantakari* which contain different properties i.e. *sara* and *tikshna guna*. drug possess *katu vipaka* and *ushna veerya*.^{(6) (7)}

Therapeutically *Kantakari* has been indicated in *Kasa, Shwasa, Jwara, Pinasa, Parshwashoola* etc. According to classics, we can use root of *Kantakari* when mentioned otherwise *panchanga* can be taken while preparing formulations. *Kantakari - Solanum xanthocarpum* Schrad. & Wendl. belongs to Solanaceae family. *Pachani* (Digests undigested food material), *Dipana* (Increases digestive fire), *Kasahara* (Anti-tussive), *Kapha-shwasahara* (Anti-asthmatic), *Jwarahara* (Anti-pyretic), *Anilnashaka* (Stabilizes vata), *Pinasa nashaka* (Lowers upper respiratory tract infection), *Parshwapida* (pain in upper abdomen), *Kruminashaka* (Anti-bacterial), *Hridayarogana-nashaka* (Heart diseases).⁽⁶⁾

CONCLUSION:

It can be concluded that *Kantakari* has been stated to treat majority of respiratory ailments. Further comparative pre-clinical studies and bio-equivalence clinical studies has been needed to explore its different pharmacological properties.

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