



## **A BRIEF DESCRIPTION OF *NIRMALI* PLANT IN SAMHITA AND CHIKITSA GRANTH**

### **Review article**

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### **ABSTRACT**

*Nirmali* (*Strychnos potatorum* Linn, Family *Loganiaceae*) is a well-known medicinal plant. Seeds of *Nirmali* (*katak*) has been used for the purification of *dushit Jala* (Unpurified water) in various ancient Ayurvedic text i.e in *Samhita* and *Chikitsa Grantha*. According to *Acharya Susruta* *katak* is mentioned in *sapta Jala prasadan dravya* in *Dravdravya vidhi adhyay* of *sutra sthana*. Another synonyms of *katak* i.e *Ambuprasadanaphala*, *Toyaprasadana*, *payahprasadi*, *jal nirmalata karak* describes its water purifying properties. Different therapeutic uses of *katak* plant has been mentioned in our Ayurvedic text i.e. *Prameh* (Diabetes), *Mutrakrach* (Dysuria), *Mutrashmari* (Urinary Stones), *Trishna* (Thirst), *Sarkarameh*, *Vrischikvish* (Scorpion poisoning). This review article of *Nirmali* (*katak*) plant is going to provide brief information about its ancient view.

**Key Words:** *Nirmali*, Medicinal plant, *Dushit Jala*, *Prameh*, *Mutrakrach*, *Mutrashmari*.

**INTRODUCTION:** In Ayurveda *Acharya Charak* described the *lakshana* of *dravya*. *Dravya* is that where action & properties are located and which is the material cause (of its effect).<sup>1</sup> *Nirmali* (*Strychnos potatorum* Linn, *Loganiaceae*) is a well known medicinal plant which has been used for the purification of *dushit Jala* in various ancient Ayurvedic text i.e in *Samhita*, *Nighantus*, *Chikitsa Grantha*. *Acharya Susruta* mentioned *Nirmali* (*katak*) as a *Jala prasadan dravya* in *Dravdravya vidhi adhyay* of *sutra sthana*.<sup>2</sup> *Astanga Samgraha* has described

*katak* in the *shodhan* of *Dushit Jala*. Polluted water should be filtered through thick cloth to remove insects and worms, heated by fire, exposed to sunlight or by immersing red hot iron balls into it and it should be purified by *parnimulla*, *kamalnaal*, *mukta*, seeds of *Nirmali* (*katak*), algae, thick cloth and *gomedaka*.<sup>3</sup> The present article showed the significance of *Nirmali* seeds in the purification of *Dushit Jala*. In our study we selected seeds of *Nirmali* plant because of its medicinal and water purifying properties mentioned in *Samhita*.

## AIM AND OBJECTIVES

- To collect all ayurvedic literature, regarding *Nirmali* seeds described in various *chikitsa granth*.
- To collect all ayurvedic literature of *Nirmali* seeds showing its water purifying properties.

## MATERIAL AND METHODS:

Ayurvedic literature of *Nirmali* seeds were collected from different *samhitas* and *chikitsa granth* i.e. *Charaka Samhita*, *Susruta Samhita*, *Ashtanga Samgraha*, *Ashtanga hridya*, *Sharangdhra Samhita*, and *Bhavprakash Samhita*

## CLASSICAL NAMES:<sup>4,5</sup>

*Katak, Kattha, Kataka, Ambuprasadanaphala, Gudaphala, Toyaprasadanaphala, Dantap*

**Table No.1 showing Ayurvedic properties of *Nirmali* plant (seed)**

Properties	P.V.Sharma (K.N)	A.P.I
<b>Rasa</b>	<i>Madhura, Kshaya, Tikta</i>	<i>Madhura, Tikta, Kshaya</i>
<b>Guna</b>	<i>Laghu, Visada</i>	<i>Sheeta, Guru</i>
<b>Virya</b>	<i>Sheeta</i>	<i>Usna</i>
<b>Vipaka</b>	<i>Madhura</i>	<i>Madhura</i>
<b>Doshkarma</b>	<i>Kaph-vata shamka</i>	<i>Vatahara, Pittala</i>

## KARMA:

*Ashmaribhedak, Chedan, Deepan, Jalashodhak*

## ROGAGHNATA (Therapeutic uses)

*Agnimandhya, Aruchi, Aatisara, Kirmi, Apasmara, Gulama, Prameh, Mutrakrach, Mutras mari, Netraroga, Trisna, Sarkrameha, Rakta abhishyanda, Vrscikavisha.*

## Morphological Characters

It is a medium-sized, glabrous tree, grows in deciduous forest of Bengal, central and south india upto 1200m., Seed upto 8 mm

*hala, Dantapushpa, Tiktaphala, Tiktamaricha, Chedaniya, Shlakshna*

## VERNACULAR NAMES:<sup>6,7</sup>

Hindi: *Nirmali, Nelmal, Neimal*

English: Clearing nut

Marathi: *Chilbing, Chilhara, Gajara, Nirwali*

Bengal: *Nirmali*

Malayalam:

*Katakam, Tetta, Tettamparap, Titramparala*

Punjabi: *Niemali*

Tamil: *Akkolam, Tettankottai, Teru*

Urdu: *Nirmali*

Sanskrit:

*Kataka, Kata, Kataka, Katakarenu, Payaprasadi, Chakshushya*

## AYURVEDIC PROPERTIES OF NIRMALI PLANT:<sup>8,9</sup>

dia., circular, bluntly lenticular, shiny with short, appressed silky hairs; cream-white in colour with a slightly prominent ridge round the border, no bitterness.

## Phytochemical Constituents

The extract of its root, stem bark, and seeds have revealed the presence of alkaloids, flavonoids, glycosides, lignins, phenols, saponins, sterols, and tannins.

## DOSES:

Seed-3-6gm



Fig no-1 *Nirmali* seeds

**Fig No.1 showing pictures of *Nirmali* plant seeds**

#### LITERARY REVIEW-

*Samhita kala-*

*Charaka Samhita*<sup>10</sup>

- *Charaka Samhita* is one of the famous Ayurvedic text book written by Acharya Agnivesha in 1000 BC, edited by Acharya

*Charaka* in 200 BC, refined by Acharya *Dridbala* in 4<sup>th</sup> century A.D.

- *Vishaghnamahakashyay*<sup>11</sup> – Ch.S.Su.4/16
- *Madhur skandh* – Ch.S.Vi 8/39

**Table No.2 showing Formulation/Gana of *Nirmali* plant (seed) mentioned in *Charaka Samhita***

S.no.	Formulation/Gana	Indication	Mode of application	Reference
1.	<i>Savandrastadighrit</i>	<i>Raktajmutrakrach</i>	Internal use	<i>CharakS.Chikitsa.</i> 26/74
2.	<i>Sukhavativarti</i>	<i>Timir,Kanch,Patagattrog,</i>	External use	<i>CharakS.Chikitsa.</i> 26/252-253

*Susruta Samhita*<sup>12</sup>

- *Susruta Samhita* is written by *VriddhaSusruta* in 1000 BC, edited by Acharya *Susruta* in 2<sup>nd</sup> cent. A.D and refined by *Nagarjuna* in 5<sup>th</sup> A.D.

- *Paruskadigana* indicated in *Mutradoshhar,Anilvinashnam,Pipasaghan,Hridya,*
- *Ruchiprad*<sup>13</sup> – *Su.S.Sut.38/43*
- *Madhura varg* -*Su.S.Sut.42/18*
- *Kashyayvarg* -*Su.S.Sut.42/23*
- *Dravdravyavidhi* - *Su.S.Su.45/17*
- *Pratisarna* - *Su.S. Chi.1/99*

**Table No.3 showing Formulation/Gana of *Nirmali* plant (seed) mentioned in *Susruta Samhita***

S.no.	Formulation/Gana	Indication	Mode of application	Reference
1.	<i>Pichukadiyog</i>	<i>AshmariChikitsa</i>	Internal use	<i>Su.S.Chi.7/97</i>
2.	<i>SavranaSukra Chikitsa</i>	<i>Raktabhishyand pratishedh</i>	External use	<i>Su.S.Uttar.12/34</i>
3.	<i>Putapakavidhi dravya</i>	<i>Kriyakalpa</i>	External use	<i>Su.S. Uttar.18/36</i>

- *Ashtanga Samgraha*<sup>14</sup>
- This treatise is written by Acharya *Vaghbata* in 6<sup>th</sup> century A.D.
- Acharya *Vaghbata* mentioned *katak* in
- *Vataprasamanadravya* - As.Su.14/7
- *Parusakadigana* - As.Su.16/6
- *Madhuraskandha* - As. Su.18/19

**Table No.4 showing Formulation/Gana of Nirmali plant (seed) mentioned in Ashtanga Samgraha**

S.no	Formulation/Gana	Indication	Mode of application	Reference
1.	<i>Visajustatailadiyog</i>	<i>Twag, daha, Sveda</i>	External use	As.S.Su.8/17
2.	<i>Asmariadichikitsyayyog</i>	<i>AsmariChikitsa</i>	Internal use	As.S.Chi.13/11
3.	<i>Abhisyandapratisedhiayyog</i>	<i>Abhisyandapratisedha</i>	Internal use	As.S.Uttar.19/27

*Ashtanga hridya*<sup>15</sup> This samhita is written by Acharya *Vaghbata* in 7<sup>th</sup> century A.D. Acharya *Vaghbata* mentioned *katak* in different yog.

**Table No.5 showing Formulation/Gana of Nirmali plant (seed) mentioned in Ashtanga Hridya**

S.no	Formulation	Indication	Mode of application	Reference
1.	<i>Sarkarabhedakgudpaan</i>	<i>Sarkarapatan</i>	Internal use	Ah Chi. 11/27-28
2.	<i>Eladiyog</i>	<i>Vartam rog</i>	External use	Ah Uttar 9/33-34
3.	<i>Mahanelagutika</i>	<i>Sandhisittasitrog</i>	External use	Ah Uttar 11/44-45
4.	<i>Sarpasadhyu anjan</i>	<i>Drishtiprasadan</i>	External use	Ah Uttar 13/41

*Sharangdhar Samhita*<sup>16</sup>

This *samhita* is written by Acharya *Sharangdhar* in 13<sup>th</sup> cent.

**Table No.6 showing Formulation/Gana of Nirmali plant (seed) mentioned in Sharangdhar Samhita**

S.no	Formulation	Indication	Mode of application	Reference
1.	<i>Dasmularis tVata Dayoyog</i>	<i>Nirmaltakarak, grahni, aruchi, Swas, Kasa, Gulm, Bhagandar, Vatavyadhi, Chardi, Pandu, Kamla, Kusth, Arsh, Mandagni, Udar, Sarkara, Ashmari, Mutrakrach, Dhatukshaya, Krish, Pushtijanan,</i>	External Internal both	<i>Sar.Sam.Madhyakhand.10/89</i> Page no-144
2.	<i>Katakraaskri yayog</i>	<i>Netraprasadan karma</i>	External use	<i>Sar.Sam.Uttarkhand.13/103</i> Page no-269
3.	<i>Krishnsarp</i>	<i>Darsanprada</i>	External use	<i>Sar.Sam.Uttar</i>

vasa rasakriya yog			khand.13/105 Page no-504
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**Bhavprakash Samhita**<sup>17</sup> This *samhita* is comes under *laghutrayi*. *Acharya Bhavmishra* son of *Latkan Mishra* wrote this book in 16<sup>th</sup> century. *Acharya Bhavmishra* mentioned *katak* in

Contraindication of *loha sevinam Apathyani* in *Arsh Chikitsa adhyay -Bhav. Madhya khand.5/128 Page no-64.* Contraindication of *Khadakadhya loham Raktpitt Chikitsa adhyay- Bhav.Madhya khand 9/88-89 Page no-119-120.*

**Table No.7 showing Formulation/Gana of *Nirmali* plant (seed) mentioned in *Bhavprakash Samhita***

S.no	Formulation	Indication	Mode of application	Reference
1.	<i>Sarkaradhyayog</i>	<i>AshmariChikitsa</i>	Internal use	<i>Bhav.Madhyakhand 37/46 Page no-380</i>
2.	<i>Snehaniraskriya</i>	<i>Netrarogadhikar</i>	Internal use	<i>Bhav.Madhyakhand 63/206 Page no-662</i>

**DISCUSSION:** Discussion section is the important part of any study. The purpose of any research work is to find out the new facts or verification of previously mentioned facts. The conception of our work clearly aims to determine the concept of *Acharya Susruta* mentioned in *Susruta Samhita Sutra sthana*. According to *Acharya Susruta* *Nirmali (Katak)* is one of *Sapt Jala prasadana dravya* described in chapter 45. We selected *Nirmali* for our research work because of its *jala shodhan* properties mentioned in different *Samhita* and *Nighantu*. Seeds of *Nirmali* (*katak*) has been used for the purification of *dushit Jala* in various ancient Ayurvedic text i.e in *Samhita, Nighantu, Chikitsa Grantha* etc. According to *Acharya Susruta* *katak* is mentioned in *sapt Jala prasadana dravya* in *Dravdravya vidhi adhyay* of *sutra sthana*. Other synonyms of *katak* are *Ambu prasadana phala, Toyaprasadana payah prasadi, jal nirmalta karak* describes its water purifying properties. *Acharya Charaka* mentioned *Nirmali (katak)* in *Vishaghna mahakashay*.

*Acharya Susruta* mentioned *katak* in *Paruskadi gana* indicated in *Mutradoshhar, Anilvinashnam and pipasaghan*. Many therapeutic uses of *Nirmali (Katak)* has been mentioned in our Ayurvedic text i.e *Prameh, Mutrakrach, Trishna, Sarkarameh, Vrischikvish, Asmari, Twag rog and Netra rog* etc.

**CONCLUSION:** The plant *Nirmali (Katak)* (*Strychnos potatorum linn*) is a well-known medicinal plant. The multiple benefits of *Katak* made it a true miracle of nature. The present review article reveals that the plant is used in treating various ailments. The detailed description of *Nirmali* plant mentioned in different Ayurvedic texts i.e *Samhita* and *Chikitsagranth* shows its *Jala prasadana* property especially and other properties like *netranirmaltakarak, Ashmaribhedak, Mutrakrcch* etc.

#### REFERENCES-

- 1- Shastri Satyanarayan, Charak Samhita, vidyotani hindi vyakhyा,

Sutrasthana, Reprint, Varanasi, Chaukamba Bharti Academy, 2011, Pg -24

2- Shastri Dutta Ambika Kaviraj, Susruta Samhita, Ayurveda tattva Sandipika, Hindi vyakhyा, Sutra sthana, Reprint, Chaukamba Bharti Academy, 2009, Page no-219

3- Murthy Srikantha K.R., Astanga Samgraha of Vagbhata, (text English translation), Sutra sthana, Chaukhamba Orientalia, 2005, Page no-86-87.

4- Anonymous. Vol. 1. New Delhi: The wealth of India-Raw Materials, Publication and Information Directorate, CSIR; 1976. pp.76-9. [[Google Scholar](#)]

5- Rajaram kantdev, Shabda kalpa druma Chaukhamba Sanskrit series v.s.1970

6- Kirtikar KR, Basu BD. L.M. Basu 1647 Indian medicinal plants, Vol. 3, Allahabad; 1933.

7- Sharma P.V, Dravya guna Vigyana, Second part, Reprint, Varansi, Chaukhamba Bharti Academy, 2012, page no-96

8- API Part-I, Vol-IV, Page no-49

9- Sharma P.V, DravyagunaVigyana part II , Reprint-2012, Varansi, Chaukhamba Bharti Academy, pg no-96-97

10- Shastri Satyanarayan, Charak Samhita, vidyotani hindi vyakhyा, Sutrasthana, Reprint, Varanasi, Chaukhamba Bharti Academy, 2011, Poorvardha and Uttrardha.

11- Shastri Satyanarayan, Charak Samhita, vidyotani hindi vyakhyा, Sutrasthana chapter no-4th, Reprint, Varanasi, Chaukhamba Bharti Academy, 2011, Page no-83.

12- Shastri Dutta Ambika Kaviraj, Susruta Samhita, Ayurveda tattva Sandipika, Hindi vyakhyा, Sutra sthana, Reprint, Chaukamba Bharti Academy, 2009, Poorvardha and Uttrardha.

13- Shastri Dutta Ambika Kaviraj, Susruta Samhita, Ayurveda tattva Sandipika, Hindi vyakhyा, Sutra sthana, Reprint, Chaukamba Bharti Academy, 2009, Page no-186

14- Murthy Srikantha K.R., Astanga Samgraha, Acharya Vridha Vagbhata, Vol-I, II & III, English translation, Varansi, Chaukhamba Orientalia, 2005.

15- Gupta Atrideva Kaviraj, Astanga Hridaya Acharya Vagbhata, Reprint, Varanasi, Chaukhamba Prakashana, 2019.

16- Murthy Srikantha K.R., Sharangdhar samhita by sharangdhra A treatise on Ayurveda, English translation, Sixth edition, Varansi, Chaukhamba Orientalia, 2006, Page no-144, 269, 504.

17- Sankaramisra pandit sri brahma, Bhav prakash Samhita, Uttrardha Madyam khand, Ninth Edition, New Delhi, Chaukhamba Publications, 2005, Page no-64, 119-120, 380, 662.

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