



RESEARCH ARTICLE

AYURVEDIC REVIEW ON EFFICACY OF SAHACHARA

¹Dr. Shalu and ²Dr. Ajay Kumar Gupta

¹PG scholar, P.G. department of Shalya Tantra, Uttarakhand Ayurveda University, Rishikul Campus, Haridwar Uttarakhand India Pin code 249401; ²H.O.D. and Professor P.G. department of Shalya Tantra, Uttarakhand Ayurveda, University, Rishikul Campus, Haridwar Uttarakhand India Pin code 249401

ARTICLE INFO

Article History:

Received 14th August, 2024

Received in revised form

27th September, 2024

Accepted 20th October, 2024

Published online 30th November, 2024

Key Words:

Sahachara, Vata, Kapha Dosha.

*Corresponding author:

Dr. Shalu

ABSTRACT

Ayurveda being a nature-based system of medicine have a wealth of therapeutic herbs and among there one of them being the most effectively employed is *Sahachara*. *Sahachara* is an *Ayurvedic* herb mentioned in various *Ayurvedic Samhitas* and *Nighantus*. It is a folk medicine used in different regions of India. *Sahachara* is a multipurpose drug also used worldwide due to presence of its unique properties and wide range of phytochemical constituents present in it. *Sahachara* is known by various vernacular names in *Ayurveda*, *Siddha*, *Unani* and other traditional system of medicine as *Sahachara*, *Kurantaka*, *Vajradanti*, *Kat-Sareya*, *Peela-Bansa* etc. In *Ayurveda*, *Sahachara* is mentioned as one of type of *Saireyaka*. Two Varieties of *Saireyaka* are mentioned in *Ashtang Hridayam*, other *Samhitas* and authentic textbooks of *Ayurveda* also. Its vast description is also available in *Nighantu*.

Copyright©2024, Shalu, and Ajay Kumar Gupta. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Citation: Dr. Shalu, and Dr. Ajay Kumar Gupta. 2024. "Ayurvedic review on efficacy of sahachara". *International Journal of Current Research*, 16, (11), 30682-30685.

INTRODUCTION

Sahachara is one of type of plant *Saireyaka* mentioned in *Ayurveda*. Four varieties of *Saireyaka*, viz. *Rakta*, *Peeta*, *Neela*, *Shweta* are mentioned in *Nighantus*. *Sahachara* is discussed by different *Acharyas* in *Brihatrayee* (*Charaka*, *Sushruta*, *Astanga Samhita*) and *Laghutrayee* (*Bhavprakas*, *Sharangdhara* etc). Botanical name of *Sahachara* is *Barleria prionitis*, belongs to *Acanthaceae* family and genus *Barleria* which has total 300 species. It is a perennial, bushy medicinal plant found extensively in India^[1]. *Sahachara* is an indigenous plant of Africa and south Asia. Along with the whole plant its particular part like flower, roots, stem, leaf, bark has their specific therapeutical action against numerous diseases. Apart from the therapeutical properties, it is also used as decorative plant. *Sahachara* is commonly known as 'Yellow Nail Dye Plant' in English.

Vernacular Names / Local Names^[2]

Sanskrit: *Bana*, *Jhinti*, *Katasarika*, *Kuranta*, *Kurantaka*, *Peetapushpaka*, *Peetsariyaka*, *Sahachara*, *Saireyaka*, *Shwetapushpa*.

Hindi: *Sahachara*, *Katsareya*, *Vajradanti*, *Peela-bansa*

English: Porcupine flower, Crossandra, Barleria, Yellow Nail Dye Plant.

Urdu: *Peela-bansa*, *Piya-bansa*.

Marathi: *Koranta*, *Koranti*, *Kalsunda*.

Botanical Classification^[3]

Botanical name:	<i>Barleria prionitis</i>
Family:	Acanthaceae
Kingdom:	Plantae
Subkingdom:	Tracheobionta
Division:	Magnoliophyta
Class:	Magnoliopsida
Subclass:	Asteridae
Order:	Scrophulariales
Genus:	<i>Barleria</i>
Species:	<i>prionitis</i>

Morphological Description^[4]: *Sahachara* is an erect perennial shrub of 0.6-1.5 m. height and the plant is very much branched. *Sahachara* is usually prickly shrub and the spines (spikes) are about 1-2 cm long.

Stem: The plant is usually single stemmed but branched, and the bark of the plant is whitish in color.

Leaves: The leaves are about 9-18 in number and up to 2.5-5.7 cm. Leaves are elliptic and pointed with a fine point. Leaf has hair (ciliated) on the margin and the base is wedge shaped. Dotted glands are present beneath the surface of leaf. Tip of the leaf is bristle. Arrangement of leaves is like- glabrous at above and more or less pubescent (especially the young leaves) are beneath. The base of leaf is tapering into the petiole. Usually 3 (sometimes more or less) divaricate acicular spines are present in the axils.

Flowers: Morphologically the flowers are solitary or in cyamose cluster in lower axils and often sessile and becoming spicate above. The flowers are whitish and golden yellow in color. According to the color of flower *Sahachara* is categorized in two varieties i.e. White-flowered variety and Yellow-flowered variety. Flowering is usually from November to January. Flowers are used as garlands.

Fruit: The fruit is present as ovoid capsule and having usually single seeded or sometimes two seeded. The fruit of *Sahachara* is appressed hairy. Fruiting is from January and onwards.

Seeds: Seed of plant *Sahachara* is 8 mm. in diameter and is compressed, clothed with silky appressed hairs.

Varieties of *Sahachara* ^[5]

- **White-flowered variety:** This variety is bitter, sweetish; heating, alexiteric, useful in toothache, leucoderma, blood complaints, bronchitis, itch, etc.
- **Yellow-flowered variety:** This variety is bitter, acrid; heating, appetiser, useful in diseases of the skin and the blood, itching, pruritis, inflammations.

Classification In Ayurveda: *Sahachara* is found in following four varieties ^[6]

- **Peeta:** This variety is mentioned in *Bhavprakash Nighantu*, in *Abhidhan Ratnamala* in *Tiktakanda* ^[7] as *Kurantaka*, in *Naam Samgraha* and *Dhanvantari Nighantu* in *Guduchiyadi Varga* ^[8]
- **Rakta:** It is mentioned in *Dravya Naam Samgraha* ^[9] and *Nighantu Shisha* ^[10].
- **Neela:** It is mentioned in *Kaiydev Nighantu* ^[11] and in *Dhanvantari Nighantu*.
- **Shweta:** It is mentioned in *Naam Samgraha* and *Kaiydev Nighantu*.

Rasa Panchaka: ^[12] Rasa: Madhura, Tikta; Guna: Guru, Snigdha; Virya: Ushna

Vipak: Katu

Karma: Vata-hara, Kapha-hara, Deepana, Pachana, Shophahara, Visha-hara, Kesh-Ranjana.

Important Formulations: *Sahachara* Taila, *Nilikadya Taila*, *Ashtavarga Kwatha Chura*, *Rasnarandadi Kwatha Churna* etc.

Therapeutic Uses: Vata-Kapha Vyadhi, Kustha, Kandu, Vatarakta, Palit etc.

Action of *Sahachara*

Doshaghanata: *Vata* and *Kapha Shamaka*

Dhatugamitva: Rakta, Shukra, Rasa

Indications: Vata- Vyadhi, Vrana, Kustha, Shotha, Vidradhi, Gandamala, Raktavikara, Sarvangshotha, etc.

The whole plant, and especially the root is much used as a diuretic. A medicated oil is prepared by boiling the leaves and stems of *Sahachara* with an oil having *Madhura Vipaka* until all the water content has been evaporated. This oil is used in *Vata- Vyadhi* and for the cleaning of wounds ^[14]. In the Konkan, the dried bark is given in whooping cough, and two tolas of the juice of the fresh bark with milk in anasarca; it acts as a diaphoretic and expectorant. The juice of the leaf is used by the natives in Madras in catarrhal affections of children, accompanied with fever. The ashes of the burnt plant, mixed with kanjee and water, are used in dropsy, and anasarca, and also in coughs. In Bombay, the natives apply the juice of the leaves to their feet in the rainy season to prevent cracking. A tooth paste made of the astringent leaves and common salt is used to strengthen the gums and in tooth-ache due to caries. In La Reunion, the plant is credited with diuretic, febrifugal, and Anti-catarrhal properties.

Action on *Dosha, Dhatu, and Mala*

Dosha: *Sahachara* pacifies the "Vata" and "Kapha" *Dosha*, contributing to its role in managing conditions associated with their imbalance.

Dhatu: The effects of *Sahachara* extend to multiple tissues ("Dhatu"), with a significant influence on the "Rasa" *Dhatu* (plasma) and "Rakta" *Dhatu* (blood tissue).

Mala: *Sahachara's* potential impact on the "Kapha" *Dosha* may contribute in maintaining balanced *Mala* (waste products) elimination.

AYURVEDIC DESCRIPTION

Charak Samhita: In *Charak Samhita*, *Sahachara* is also mentioned with name *Kurantaka*. In *Charak Chikitsa*, *Sahachara* is mentioned in chapter *Vata Vyadhi Chikitsa* in the formulation of oil (*Sahachara Taila*) ^[13]. *Sahachara* possesses *Guru, Snigdha Guna* and *Ushna Virya* which are opposite to *Vata's Laghu, Ruksha* and *Sheeta Guna*, hence pacifies vitiated *Vata Dosha*.

In *Trimarmiya Adhyaya*, *Sahachara* is mentioned as *Zhinti (Neela Sahachara)* in the treatment of *Palitya*. ^[14] According to *Acharya Charak*, *Pitta* and *Vata Doshas* are mainly responsible for the diseases *Palitya*. Here with the *Madhur Rasa* and *Snigdha Guna*, *Sahachara* normalizes the vitiated *Vata* along with *Kapha Dosha*.

Sushruta Samhita: *Acharya Dalhan* mentioned *Sahachara* as *Peeta Pushpa* in *Araghwadhadi Gana*. *Sahachara dwaya* has been mentioned as *Rakta* and *Neel* in *Varunadi gana*, ^[15] and indicated in *Kaphaj-Vata Vikara*. *Karma* of the drug *Sahachara* is *Vata* and *Kapha Shaman*.

Ashtang Hridaya: In *Ashtang Hridaya*, *Sahachara Yugma* is mentioned in *Varunadi Gana* in *Shodhanadigana Sanghrah*

Adhyaya^[16]. *Acharya Arundatta* mentioned *Sahachara yugma* as *Kurubaka (Rakta)* and *Kurantaka (Peeta)*. *Kurantak* is also mentioned in *Visarpa* for external application, and application to eyes after *Arma Shastra Karma*. Total four references of *Kurantaka* are found in *Ashtang Hridaya*.

Bhavprakash Samhita: *Bhavprakash* mentioned *Peeta Sahachara* as *Kurantaka* (in *Mishra Prakaran*). *Sahachara* is mentioned in *Ardra Dravya Vishesh*, as a *Kalka Dravya* in *Anuvasan Taila*. It is also mentioned for *Vata Vyadhi* as *Kwath Dravya* in *Mahanarayan Taila*. It is also described in *Jwara Adhikaran*, in *Sandhik Sannipataj Jwara Awastha*^[17] because the symptoms of *Sandhik Jwara* are specifically found in bones (*Asthi*) and joint (*Sandhi*) like pain and swelling in bones and joint and same symptoms are found in *Aam Vata*. *Asthi* is the main site (*Adhisthaan*) of *Vata Dosha*. So, basically *Vata Dosha* is responsible for the development of above diseases i.e., *Vata-Vyadhi*, *Sandhik Jwara* and *Aam Vata*. To normalize the vitiated *Vata*, the drug *Sahachara* is used because it has opposite *Guna* i.e. *Guru* and *Snighda*, which are opposite to *Vata's Laghu* and *Ruksha Guna*.

Yog-Ratnakara: In *Yoga Ratnakara*, *Sahachara* is mentioned in *Vata Vyadhi* in *Shadasthi Guggulu*. *Vata Prakopaka Nidana* like the *Ahara* which are of *Sheeta*, *Ruksha Guna* and *Ushna Virya* cause vitiation of *Vata Dosha*. So, to normalize the vitiated *Vata*, the drug having opposite *Guna* and *Vipaka* that of *Vata* i.e. *Snighda*, *Guru* and *Ushna Virya* will help to balance the *Vata Dosha*.

Sharangdhar Samhita: *Sahachara* is mentioned as *Kurantaka* in *Sharandhar Samhita's Madhyam Khand*. *Kashyap Samhita Sahachara Dwaya* has been mentioned as *Neela* and *Rakta* in *Baalgraha Chikitsa* and *Dhatri Chikitsa*.

Bhaishajya Ratnavali^[18] In *Bhaishajya Ratnavali*, reference of *Sahachara* is found in *Sootika Roga Chikitsa*.

Description in Nighantu

Abhidhaan Manjiri:^[19] *Shweta* and *Neela* varieties of *Sahachara* are mentioned in *Abhidhaan Manjiri*.

Abhidhaan Ratnamala:^[20] In *Abhidhaan Ratanmala*, *Nighantu* mentioned total of three varieties of *Saireyaka* as *Peeta*, *Neela* and *Aruna*. Description about *Peeta Saireyaka* is given in *TikitaSkandh* as *Kurantaka*.

Ashtang Nighantu:^[21] In *Ashtang Nighantu*, about two varieties of *Saireyaka* are mentioned as *Peeta* and *Neela*.

Madanadi Nighantu:^[22] In *Madanadi Nighantu*, *Saireyaka* is mentioned in *Chaturdasha Gana*.

Naam Samgraha:^[23] In *Guguchaydi varga*, four varieties of *Saireyaka* are mentioned according to colour of flowers. Variety with *Peeta* flowers is accepted as *Kurantaka*.

Nighantu Shisha:^[24] Three varieties of *Saireyaka* along with their specific names are mentioned in *Nighantu Shisha*. *Kurantaka* is mentioned as *Peeta Pusha*, *Rakta* as *Artagala* and *Neela* as *Vasa/Dasi/Audakya*.

Dhanvantari Nighantu:^[25] In *Guduchyadi varga*, three types of *Saireyaka* are mentioned according to the colour of flowers - *Peeta*, *Rakta* and *Neela*. *Peeta* variety is mentioned as *Kurantaka*, and *Rakta* is mentioned as *Kurubaka*. *Dhanvantari Nighantu* has specially mentioned *Guna-karma* of *Kurantaka* and having action as "*Tri doshashamak*".

Kaiyadev Nighantu:^[26] *Kaiyadev Nighantu* has mentioned about all four variety of *Saireyaka*, one with *Peeta Pushpa* is known as *Kurantaka*. *Vata* and *Kapha Hara*, *Kushtha*, *Kandu*, *Visha Hara* are mentioned as *Guna Karma* of *Saireyaka*. Synonyms of *Saireyaka* are given as *Saireyaka*, *Sahachara*, *Saireya*, *Mrudukantak*. *Guna* are mentioned as *Tikta*, *Madhur*, *Ushna*, *Snigdha*, *Kesh Ranjak*, *Kapha-Vata Raktavikaar Hara*, *Kushtha*, *Kandu*, *Visha Nashak*.

Madanpal Nighantu:^[27] *Kurantaka* is mentioned as *Peeta Saireyaka* in *Madanpal Nighantu*. Two other varieties like *Rakta* and *Neela* are also mentioned.

Raj Nighantu:^[28] In *Raj Nighantu*, seven synonyms of *Kurantaka* are mentioned in *Karviradi varga* having *Ushna Virya* and *Vata-Kapha Hara* action.

Bhavprakash Nighantu:^[29] *Bhavprakash* has mentioned *Kurantaka* should be always taken in wet form in *Aushadh Graham* rules. And '*Kurantaka*' is the name given to *Peeta Saireyaka*.

Important Phytoconstituents *Sahachara's* pharmacological attributes are attributed to its diverse collection of phytoconstituents:

- **Alkaloids:** These compounds contribute to the plant's pharmacological activities.
- **Flavonoids:** Flavonoids are known for their antioxidant and anti-inflammatory properties.
- **Triterpenoids:** Triterpenoids offer anti-inflammatory and immunomodulatory effects.
- **Saponins:** Saponins have diverse biological activities, including anti-inflammatory and antifungal properties.

Diuretic Activity: Diuretic activity of *Barleria prionitis* flower extract show significant increase in the urination and sodium elimination but not potassium.

Anti-Hypertensive Action: Methanolic extract from whole plant of *Barleria prionitis* possessed profound antihypertensive activity.

Hepatoprotective Activity: The oral administration of IF (222 active fraction (iridoid enriched) of *Barleria prionitis* has a beneficial effect on the hepatoprotection. It may be suggested that the use of IF inhibits the hepatocellular metabolic alteration.

Anti-Diabetic Activity: The leaves and root of *Barleria prionitis* contains alcoholic extract having antidiabetic activity. *Barleria prionitis* leaves show significant decrease in blood glucose level, glycosylated hemoglobin and significant increase in seruminsulin and liver glycogen level.

Anti-diarrhoeal Activity: The leaves of *Barleria prionitis* has Butanol fraction which show significant anti-diarrhoeal activity. The butanol fraction also reduces the gastrointestinal motility.

CONCLUSION

As per the *Samhitas* and *Nighantus*, the plant *Sahachara* is used in various forms for multiple therapeutic benefits. *Katu, Tikta, Kashaya Rasa* and *Laghu, Sheeta, Ruksha Guna* which are responsible for the vitiation of *Vata Dosha*. This vitiated *Vata Dosha* leads to the development of *Vata Vyadhyis*. The drug *Sahachara* has *Madhura Rasa* and *Guru, Snighda Guna* and *Ushna Vipaka* which pacifies *Vata Dosha (Shaman of Vata Dosha)* and hence, relieves the sign and symptoms of disease by removing the root cause i.e., *Vata Dosha*, with the action of *Madhura Rasa, Guru, Snighda Guna* and *Ushna Vipaka*. Hence, it not only gives the symptomatic relief but removes the root cause of the disease. Results from various *Samhitas* and *Nighantus* also indicate that *Sahachara* possesses many qualities, including *Doshaghanata* and *Kapha-Vata Shamaka* action. It is also helpful in management of *Vrana, Kustha, Shotha, Vidradhi, Gandamala, Raktavikara, Updansha, Sarvangshotha, Pratishayaya, Kaphaj Kasa, Jwara* etc.

The chemical Compounds such as tannins, saponins, glycosides, phenolic acids, phytosterols, and terpenes have been identified in the plant. The plant *Sahachara* is scientifically known as *Barleria prionitis*, emerges as a dynamic botanical drug of *Ayurveda*. *Sahachara* is found as very effective and safe *Ayurvedic* drug with tremendous medicinal properties. *Samhitas* and *Nighantus* are the basic literature to understand and identify different medicinal plants. After review of *Sahachara* in different *Samhitas* and *Nighantus* different synonyms and properties of *Sahachara* along with multiple formulations and their medicinal uses has been explored. Along with these, pharmacological activities are also reported in *Barleria prionitis*. This plant attributes its unveiled role through its *Rasa Panchaka (Rasa, Guna, Viriya, Vipaka, Prabhav)*, therapeutic indications, and potential formulations which testify its specific benefits for holistic health. *Sahachara* has multifaceted nature and its potential to enhance well-being in alignment with *Ayurvedic* principles.

REFERENCES

1. <https://archive.bsi.gov.in/echoHerbarium>
2. Colonel K.R. Kirtikar and Major B.D. Basu, Indian Medicinal Plants, second edition, Text volume- 3, Published by International Book Distributors, Printed by Prashant Gahlot, Dehradun.
3. Acharya P.V. Sharma, Dravyaguna-Vijyana, Volume-2, Reprint edition 2015 Varanasi, Chaukhamba Bharti Academy.
4. Colonel K.R. Kirtikar and Major B.D. Basu, Indian Medicinal Plants, second edition, Text volume- 3, Published by International Book Distributors, Printed by Prashant Gahlot, Dehradun.
5. Colonel K.R. Kirtikar and Major B.D. Basu, Indian Medicinal Plants, second edition, Text volume- 3, Published by International Book Distributors, Printed by Prashant Gahlot, Dehradun.
6. Prof, Priyavrat Sharma, Dr. Guru Prasad Sharma, Kayadev Nighantu, Pathyapthya- Vibodhakah, Chaukhamba Orientalia 1979.
7. Abhidhan Ratanmala- Shadaras Nighantu, Tikta Kshandha- 4/54.
8. Naam samgraha, first part, Guduchyadi varga 1/275 [https://niimh.nic.in/ebooks/eNighantu/Naam samgraha](https://niimh.nic.in/ebooks/eNighantu/Naam%20samgraha).
9. Naam samgraha, first part, Guduchyadi varga 1/275 [https://niimh.nic.in/ebooks/eNighantu/Naam samgraha](https://niimh.nic.in/ebooks/eNighantu/Naam%20samgraha).
10. Acharya Hemachandra, Nighantu Shesha, Gulmakanda 2/246 [https://niimh.nic.in/ebooks/e-Nighantu/Nighantu shesha](https://niimh.nic.in/ebooks/e-Nighantu/Nighantu%20shesha).
11. Prof, Priyavrat Sharma, Dr. Guru Prasad Sharma, Kayadev Nighantu, Pathyapthya- Vibodhakah, Chaukhamba Orientalia 1979.
12. Acharya P.V. Sharma, Dravyaguna-Vijyana, Volume-2, Reprint edition 2015 Varanasi, Chaukhamba Bharti Academy.
13. Sri Satya Narayana Sastri, Caraka Samhita, Part-2, Chikitsa Sthana-28, Revised Edition: 2020, Reprint: 2021, Published by Chaukhamba Bharti Academy.
14. Sri Satya Narayana Sastri, Caraka Samhita, Part-2, Chikitsa Sthana-26, Revised Edition: 2020, Reprint: 2021, Published by Chaukhamba Bharti Academy.
15. Acharya Sushruta, Sushruta Samhita, Sutrasthan, Dravyasangrahaneya Adhyaya 38/6, edited with Ayurveda tattva Sandipika by Ambikadutta Shastri, Chaukhambha Sanskrit Sansthan, Varanasi, 2003.
16. Acharya vagbhata, Ashtanghridaya, Sutrasthan 15/21-22 with commentary of Arundatta & Hemadari, Edited by Pt. Hari Sadashiva Shastri Paradkar, Chaukhambha orientalia, Varanasi, Reprint, 2010; 236.
17. Lalashaligram and Kantinarayan Mishra hindi commentary of Bhavprakash, Madhyam Khand 2, Reprint edition-2013, Published by Khemraj Shree Krishandas.
18. Shri Kviraj Ambika Dutt Sashtri, Bhaisajaya Ratnavali, Edited by Bhisagratna Shri Brahms Shankar Mishra, Edition 18 Revised 2019, Publisher Chaukhamba Prakashan.
19. Acharya Bhishagarya, Abhidhan Manjiri, Araghvadhadi gana 15/206 [https://niimh.nic.in/ebooks/e-Nighantu/Abhidhan Manjiri](https://niimh.nic.in/ebooks/e-Nighantu/Abhidhan%20Manjiri).
20. Abhidhan Ratnamala-Shadaras Nighantu, Tikta Kshandha 4/54 [https://niimh.nic.in/ebooks/e-Nighantu/Abhidhan Ratnamala](https://niimh.nic.in/ebooks/e-Nighantu/Abhidhan%20Ratnamala).
21. Shri Madhvatacharya Ashtang Nighantu, Araghvadhadi Gana 9/73 [https://niimh.nic.in/ebooks/e-Nighantu/Ashtang Nighantu](https://niimh.nic.in/ebooks/e-Nighantu/Ashtang%20Nighantu).
22. Acharya Chandanandana, Madanadi Nighantu, Chaturdasha Gana 14/7 [https://niimh.nic.in/ebooks/e-Nighantu/Madanadi Nighantu](https://niimh.nic.in/ebooks/e-Nighantu/Madanadi%20Nighantu).
23. Naam samgraha, first part, Guduchyadi varga 1/275 [https://niimh.nic.in/ebooks/eNighantu/Naam samgraha](https://niimh.nic.in/ebooks/eNighantu/Naam%20samgraha).
24. Acharya Hemachandra, Nighantu Shesha, Gulmakanda 2/246 [https://niimh.nic.in/ebooks/e-Nighantu/ Nighantu Shesha](https://niimh.nic.in/ebooks/e-Nighantu/Nighantu%20shesha).
25. [https://niimh.nic.in/ebooks/e-Nighantu/ dhanvantarinig hantu/?mod=read](https://niimh.nic.in/ebooks/e-Nighantu/dhanvantarinig%20hantu/?mod=read).
26. Prof. Priyavrat Sharma, Dr. Guru Prasad Sharma, Kayadev Nighantu (Pathyapthya-Vibodhakah) Chaukhamba Orientalia 1979.
27. [https://niimh.nic.in/ebooks/e-Nighantu/ madanapalanig hantu/?mod=read](https://niimh.nic.in/ebooks/e-Nighantu/madanapalanig%20hantu/?mod=read).
28. [https://niimh.nic.in/ebooks/e-Nighantu/ rajanighantu/? mod=read](https://niimh.nic.in/ebooks/e-Nighantu/rajanighantu/?mod=read).
29. [https://niimh.nic.in/ebooks/e Nighantu/ bhav prakashanighantu/ ?mod=read](https://niimh.nic.in/ebooks/e-Nighantu/bhav%20prakashanighantu/?mod=read).
