



A CRITICAL REVIEW OF GOMUTRA HARITAKI VATI AND NALPAMARADI TAILA IN THE MANAGEMENT OF DADRU (DERMATOPHYTOSIS)

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ABSTRACT

Introduction: Dadru is a Kapha-Pitta Pradhan Kushtha with Lakshana of Kandu, Raga, Pidaka, Mandala. The symptoms of Dadru are closely resembles with symptoms of Dermatophytosis (Tinea). Dermatophytes are the most frequent causative agents of superficial fungal infections, which affects keratinized tissue. As India being a tropical country, there has been a rise in chronic and relapsing dermatophytosis which shown the prevalence of 65.3% and 34.6% respectively. The infection rates were highest among the age groups involved in occupational and outdoor activities due to the increased exposure to fungal pathogens from the environment and increased perspiration, both predispose to fungal infection.

Dermatophytosis has emerged as a social, psychological and economic burden on the society.

Gomutra Haritaki Vati has Kledahara & Dadrughna property possesses Ushna Veerya which pacifies Kapha & on the other hand, Nalpamaradi Taila has Kandughna and Kushtaghna property possesses more Sheeta Veerya drugs, which pacifies Pitta Dosha. Hence, Gomutra Haritaki Vati for oral administration and Nalpamaradi Taila for external application to achieve a dual action in balancing both Kapha and Pitta Doshas.

Aim: To critically review Gomutra Haritaki Vati and Nalpamaradi Taila and understand their probable mode of action in the management of Dadru (Dermatophytosis).

Methods: Informations pertaining to Gomutra Haritaki Vati and Nalpamaradi Taila were reviewed from Ayurvedic texts and authentic publications.

Conclusion: Gomutra Haritaki Vati and Nalpamaradi Taila possess Rasapanchaka, Karmukata and phytochemicals which are effective in Dadru (Dermatophytosis).

KEYWORDS: Dadru, Dermatophytosis, Gomutra Haritaki Vati, Nalpamaradi Taila.

INTRODUCTION

Skin diseases have been comprehended under the heading of *Kushtha* in *Ayurveda* and we find a vivid description of *Dadru Kushtha*, since *Samhita* period. *Dadru* is categorized under both *Kshudra Kushtha* (according to *Acharya Charaka*)¹ and *Maha Kushtha* (according to *Acharya Sushruta*)².

Dadru resembles like Dermatophytosis (Tinea) based on clinical appearance. Dermatophytosis is the medical word for tinea (ring worm) that affects the body, arms, and legs. Tinea refers to illness caused by pathogens (species of fungi from the genera trichophyton, Microsporum or Epidermophyton). Classically, the lesions are extreme itchy, annular, erythematous, scaly with a well-defined edges³. In addition to standardized susceptibility testing and appropriate drug dosing, one of the ways to avoid resistance is the use of combinational antifungal therapy⁴. The tinea infections are wide spread throughout the world, but they are more frequent in the tropics and may become epidemic in places with high humidity, high

population density and unhygienic living conditions⁵. As India being a tropical country, there has been a rise in chronic and relapsing dermatophytosis which shown the prevalence of 65.3% and 34.6% respectively⁶. The infection rates were highest among the age groups involved in occupational and outdoor activities due to the increased exposure to fungal pathogens from the environment and increased perspiration, both predispose to fungal infection⁷. The present state of dermatophytosis has emerged as a social, psychological and economic burden on the society⁸.

Dadru is a *Kapha-Pitta Pradhana Vyadhi*⁹ with *Kandu, Raga, Pidaka* and *Mandala*¹⁰. So, necessitating the use of medicines which have *Tikta, Kashaya* rasa (which pacifies *Kapha* and *Pitta*) & property such as *Dadrughna, Kandughna* or *Kushtaghna*. *Gomutra Haritaki Vati* has *Dadrughna* property¹¹ & *Nalpamaradi Taila* has *Kandughna* and *Kushtaghna* property¹².

The recent study of the phytochemical compound of *Gomutra*



& *Terminalia Chebulla* Retz. & *Nalpamaradi Taila* have anti-fungal activity.¹³⁻¹⁵

action in the management of *Dadru* (Dermatophytosis).

Aim: To critically review *Gomutra Haritaki Vati* and *Nalpamaradi Taila* and understand their probable mode of

Methods: Review of information pertaining to *Gomutra Haritaki Vati* and *Nalpamaradi Taila* are reviewed from *Ayurvedic* texts and authentic publications.

DRUG REVIEW

GOMUTRA HARITAKI VATI:¹¹

Table no.- 1 - Ingredients:

Sl.no	Name of the drug	Latin name	Part used	Proportions
1.	<i>Gomutra</i>	-	-	Q.S.
2.	<i>Haritaki</i>	<i>Terminalia Chebulla</i> Retz.	Fruit	500mg

NALPAMARADI TAILA:¹²

Table no.-2 - Ingredients

Sl. No.	Name of the drug	Latin name	Part used	Proportions
1	<i>Nyagrodha</i>	<i>Ficus benghalensis</i>	Stem bark	15 grams
2	<i>Udumbara</i>	<i>Ficus racemose</i>	Stem bark	15 grams
3	<i>Ashvattha</i>	<i>Ficus religiosa</i>	Stem bark	15 grams
4	<i>Plaksha</i>	<i>Ficus lacor</i>	Stem bark	15 grams
5	<i>Haritaki</i>	<i>Terminalia Chebulla</i>	Pericarp	15 grams
6	<i>Bibhitaki</i>	<i>Terminalia Bellerica</i>	Pericarp	15 grams
7	<i>Amalaki</i>	<i>Emblica Officinalis</i>	Pericarp	15 grams
8	<i>Chandana (Rakta Chandana)</i>	<i>Santalum Album</i>	Heart wood	15 grams
9	<i>Sevya (Ushira)</i>	<i>Vetiveria Zizanioides</i>	Root	15 grams
10	<i>Kushtha</i>	<i>Saussurea Lappa</i>	Root	15 grams
11	<i>Chovvali (Manjistha)</i>	<i>Rubia Cordifolia</i>	Root	15 grams
12	<i>Choram (Choraka)</i>	<i>Angelica glauca / Kaempferia galanga</i>	Rhizome	15 grams
13	<i>Akil (Agaru)</i>	<i>Aquilaria agallocha</i>	Heart wood	15 grams
14	<i>Paimannal (Haridra) Rasa</i>	<i>Juice of curcuma longa</i>	Rhizome	1.536 l
15	<i>Parpata Rasa</i>	<i>Juice of fumaria parviflora</i>	Whole plant	1.536 l
16	<i>Tila Taila</i>	<i>Oil of Sesamum Indicum</i>	Seed oil	768 ml

Properties of *Gomutra Haritaki Vati*

Table no.-3

Drug	Rasa	Guna	Veerya	Vipaka	Karma	Indication
<i>Gomutra</i> ¹⁶	<i>Katu, Tikta</i>	<i>Laghu, Tikshna</i>	<i>Ushna</i>	<i>Katu</i>	<i>Kapha-Vatahara</i>	<i>Mrudu Rechana, Vrana Ropana, Ropana, Deepana</i>
<i>Haritaki</i> ¹⁷	<i>Kashaya Pradhana Lavana Varjita Pancha rasa</i>	<i>Laghu, Ruksha</i>	<i>Ushna</i>	<i>Madhura</i>	<i>Tridosha Shamaka</i>	<i>Kushthaghna, Shothahara, Rasayana, Kandughna, Lekhana, Vranahara.</i>
<i>Gomutra Haritaki Vati</i>	<i>Kashaya, Tikta, Katu</i>	<i>Laghu, Ruksha, Tikshna</i>	<i>Ushna</i>	<i>Katu</i>	<i>Kapha-Pitta Shamaka</i>	<i>Kledahara, Kapha-Meda Nashak, Shodhana and Lekhana properties due to Gomutra Samskara.</i>



Properties of Nalpamaradi Taila
Table no.-4

Drug	Rasa	Guna	Veerya	Vipaka	Karma	Indication
<i>Nyagrodha</i> ¹⁸	<i>Kashaya</i>	<i>Guru, Ruksha</i>	<i>Sheeta</i>	<i>Katu</i>	<i>Kapha-Pittahara</i>	<i>Varnya, Rakta-Pittahara</i>
<i>Udumbara</i> ¹⁹	<i>Kashaya</i>	<i>Guru, Ruksha</i>	<i>Sheeta</i>	<i>Katu</i>	<i>Pitta-Kaphahara</i>	<i>Vrana Ropaka, Varnya, Vrana Shodhaka, Dahahara</i>
<i>Ashvattha</i> ²⁰	<i>Kashaya Madhura</i>	<i>Guru, Ruksha</i>	<i>Sheeta</i>	<i>Katu</i>	<i>Pitta Kaphahara</i>	<i>Varnya, Vrana Ropaka, Vishaghna, Dahahara</i>
<i>Plaksha</i> ²¹	<i>Kashaya</i>	<i>Guru, Ruksha</i>	<i>Sheeta</i>	<i>Katu</i>	<i>Kapha Pittahara</i>	<i>Vranahara, Rakta-Pittahara, Shothahara</i>
<i>Haritaki</i> ¹⁷	<i>Kashaya Pradhana Lavana Varjita Pancharasa</i>	<i>Laghu, Ruksha</i>	<i>Ushna</i>	<i>Madhura</i>	<i>Tridosha Shamaka</i>	<i>Kushthaghna, Shothahara, Rasayana, Kandughna, Lekhana, Vranahara</i>
<i>Bibhitak</i> ²²	<i>Kashaya</i>	<i>Ruksha, Laghu</i>	<i>Ushna</i>	<i>Madhura</i>	<i>Tridosha Shamaka (Mainly Kapha Shamaka)</i>	<i>Bhedana, Krimighna, Shothahara</i>
<i>Amalaki</i> ²³	<i>Amla Pradhana Lavana Varjita Pancharasa</i>	<i>Ruksha, Laghu, Sara</i>	<i>Sheeta</i>	<i>Madhura</i>	<i>Tridoshahara</i>	<i>Krimighna, Kushthaghna, Rasayana</i>
<i>Chandana</i> ²⁴ (<i>Rakta Chandana</i>)	<i>Tikta, Madhura</i>	<i>Guru, Ruksha</i>	<i>Sheeta</i>	<i>Katu</i>	<i>Kapha-Pitta Shamaka</i>	<i>Varnya, Vishahara, Dahahara, Vrana Ropaka</i>
<i>Sevya</i> ²⁵ (<i>Ushira</i>)	<i>Tikta, Madhura</i>	<i>Laghu, Snigdha</i>	<i>Sheeta</i>	<i>Madhura</i>	<i>Vata-Pitta Shamaka</i>	<i>Swedahara, Dahashamaka, Raktadoshahara, Kushthaghna, Vranaropaka</i>
<i>Kushtha</i> ²⁶	<i>Tikta, Katu, Madhura</i>	<i>Laghu, Ruksha, Tikshna</i>	<i>Ushna</i>	<i>Katu</i>	<i>Kapha-Vatahara</i>	<i>Kandughna, Kushtaghna, Dadrughna, Visarpa Nashaka</i>
<i>Chovvalli</i> ²⁷ (<i>Manjistha</i>)	<i>Kashaya, Tikta, Madhura</i>	<i>Guru, Ruksha</i>	<i>Ushna</i>	<i>Katu</i>	<i>Pitta-Kapha Shamaka</i>	<i>Varnya, Rakta Shodhaka, Vishaghna, Shothahara, Kushthaghna</i>
<i>Choram</i> ²⁸ (<i>Choraka</i>)	<i>Madhura, Tikta</i>	<i>Laghu, Tikshna</i>	<i>Ushna</i>	<i>Katu</i>	<i>Vata-Kapha Hara</i>	<i>Vishaghna, Kushthaghna, Vranahara, Krimighna</i>
<i>Akil</i> ²⁹ (<i>Agaru</i>)	<i>Katu, Tikta</i>	<i>Tikshna, Laghu, Snigdha</i>	<i>Ushna</i>	<i>Katu</i>	<i>Kapha-Vata hara</i>	<i>Varnya & Kushthaghna</i>
<i>Paimannal</i> ³⁰ (<i>Haridra</i>) <i>Rasa</i>	<i>Tikta, Katu</i>	<i>Ruksha, Laghu</i>	<i>Ushna</i>	<i>Katu</i>	<i>Kapha-Pittahara</i>	<i>Kandughna, Krimighna, Varnya, Twachya, Pramehaghna</i>
<i>Parpata Rasa</i> ³¹	<i>Tikta</i>	<i>Laghu, Ruksha</i>	<i>Sheeta</i>	<i>Katu</i>	<i>Shrestha Pitta Shamaka</i>	<i>Rakta Pittahara, Dahahara,</i>
<i>Tila Taila</i> ³²	<i>Madhura, Tikta</i>	<i>Guru, Snigdha</i>	<i>Ushna</i>	<i>Madhura</i>	<i>Vatahara</i>	<i>Balya, Shrestha Abhyanga Taila</i>
<i>Nalpamaradi Taila</i>	<i>Tikta, Kashaya, Madhura</i>	<i>Snigdha, Laghu, Mridu</i>	<i>Sheeta</i>	<i>Madhura</i>	<i>Pitta Kapha Shamana</i>	<i>Twachya, Kushtaghna, Pittahara & Varnya.</i>



DISCUSSION ON THE MODE OF ACTION OF THE DRUGS

GOMUTRA HARITAKI VATI

The orally intervention *Gomutra Haritaki Vati* comprises of *Gomutra* and *Haritaki*. *Gomutra* is having *Katu*, *Tikta*, *Kashaya Rasa* & *Laghu*, *Tikshna Guna* & *Ushna Veerya* & *Katu Vipaka*, and it has properties like *Kapha-Vata Nashak*, *Kanduhara*, and *Kushthaghna*.¹⁶

Haritaki is having *Kashaya Rasa Pradhan Lavan Varjita Pancha Rasa*, *Ruksha*, *Laghu Guna*, *Ushna Virya*, *Madhura Vipaka*, and properties like *Kapha-Pitta-Vatahara*, *Mridu Rechaka*, *Kandughna*, *Kushthaghna*.¹⁷

Gomutra Haritaki Vati predominantly has the property of *Ushna Veerya*, which helps in improving the status of *Jatharagni*, thereby it is helping in *Samprapti Vighatana* of the disease. *Ushna Veerya* of the drug also acts as the *Kapha-Vata Shamaka* and *Kledahara*. It does *Pachana* of *Pitta*, promotes *Rasa Dhatwagni* and corrects *Bhrajaka Pitta*. It also helps as *Kushthaghna* (*Dadrughna*), *Kandughna*, *Krimighna* and *Twachya*. As the *Gomutra* has properties of *Tikshna Guna* and *Haritaki* has *Madhura Vipaka* and *Mrudu Rechaka* properties, both of which may help in *Pitta Rechana*.

The recent study of the phytochemical compound of *Gomutra* & *Terminalia Chebulla* Retz. (*Haritaki*) have anti-fungal activity. it contains bioactive compounds like Allantoin, Phenolic & Volatile organic compounds, Hippuric acid, Hydrolysable Tannis like Gallic acid, Chebulagic acid & Chebulinic acid that have antifungal properties.¹³⁻¹⁴

NALPAMARADI TAILA

Nalpamaradi Taila acts as *Doshaghna* by balancing aggravated *Doshas* through its anti-oxidant, anti-inflammatory, anti-fungal properties.¹⁵

Nyagrodha, *Udumbara*, *Ashvattha* & *Plaksha* play a therapeutic role in health management because of having *Kashaya*, *Madhura Rasa* & *Sheeta Veerya* which pacify *Pitta-Kapha Dosh* & they are referred to as *Vrana Ropak*, *Varnya*, they contain β -sitosterol, lupeol, polyphenolic flavonoids & quercetin possess antifungal activities & anti-inflammatory properties and can help reduce skin erythema. & high in antioxidants that serve as free radical scavengers and inhibit the progression of diseases.^{18-21,33}

Haritaki has *Kashaya Pradhan Lavana Varjita Pancharasa*, *Ushna Veerya* & *Kapha-Pitta-Vata Shamak*, having *Lekhaniya Karma* & having laxative effect which means it does *Shodhana* naturally. It could have helped drain out free radicles. *Haritaki* act as *Rasayana*, which implies anti-oxidant & rejuvenative properties and can give nourishment to skin & inhibit progression of disease.¹⁷

Bibhitaki has *Kashaya Rasa*, *Ushna Veerya*, *Madhura Vipaka* & *Tridosha Shamaka* (Mainly *Kapha Shamaka*), having *Kushthaghna*, *Bhedaniya Karma* & laxative effect which remove toxin from the body & inhibit progression of disease.²²

Amalaki has *Amla Pradhan Lavana Varjita Pancharasa*, *Sheeta Veerya*, *Madhura Vipaka*, *Tridoshaka Shamaka* with *Kushthaghna* & *Krimighna* effect which reduced inflammation of the skin & reduced skin erythema.²³

Haridra is also referred to as *Vishodhini*, which means it does *Shodhana* naturally. It could have helped drain out free radicles. *Haridra* is also known as *Vishothajita*, which implies it has anti-inflammatory properties and can help reduce skin erythema. It improves the complexion and may have aided in the *Vaivarnya* of the skin. Recent investigations of *Haridra* have revealed its pharmacological activities, including antifungal properties.²⁴

Chandan has *Tikta-Madhura Rasa*, *Sheeta Veerya* which act as *Pitta Shamaka*, *Chandan* has *Varnya* quality which improves skin complexion.²⁵

Ushira has *Tikta-Madhura Rasa*, *Sheeta Veerya* & *Madhura Vipaka* which pacify *Pitta Dosh* & having properties of *Kushthaghna*, *Vrana Ropaka* & *Swedahara*, it removes obstructions in *Swedavaha Srotas* and allows local toxins to flow out through the *Sweda*, clearing the microchannels.²⁶

Kushtha has *Tikta-Katu-Madhura Rasa*, *Ushna Veerya* which act as *Kapha-Vata Shamaka*, *Kushtha* also has *Krimighna* & *Shothahara* & *Kanduhara* properties which can reduce inflammation, Itching and *Twak Ragata* (Skin Erythema).²⁷

Chovvali (*Manjistha*) has *Kashaya-Tikta-Madhura Rasa* & *Ushna Veerya*. It acts as *Pitta-Kapha Shamaka*, it has *Rakta Prasadaka* & *Varnya* quality which can helpful to detoxification of blood & provide skin complexion.²⁸

Choram (*Choraka*) has *Madhura-Tikta Rasa*, *Ushna Veerya* it acts as *Kapha-Vatahara* & *Vrana Prasadana* which improves skin complexion.²⁹

Akil (*Agaru*) has *Katu-Tikta Rasa*, *Ushna Veerya*, it acts as *Kapha-Vatahara* it can helpful for *Kapha Vilayana* and clear the micro channels (*Sroto Shodhaka*).³⁰

Parpata has *Tikta Rasa*, *Sheeta Veerya*, it acts as *Shrestha Pitta Shamaka* and possess *Vishaghna* Property which can act as antifungal & reduce inflammation.³¹

Tila Taila has *Madhura-Tikta-Kashaya Rasa*, *Ushna Veerya* & *Madhura Vipaka* it acts as *Vata Shamaka* and it give base to above mentioned ingredients of *Nalpamaradi Taila* its known as *Shrestha Taila* for E/A due to deep tissue penetration & carries herbal properties deep into tissues.³²

Skin is a multilayered structure; the outermost part is the epidermis, which consists of stratum corneum, stratum lucidum, stratum granulosum, stratum spinosum and basale. Stratum corneum consists of keratinized epithelial cells. Stratum granulosum contains keratohyalin granules, which bind the keratin filaments in a thick layer. Stratum basale contains keratinocytes, which produce keratin protein that helps to form the skin's outer layer and melanocytes, which produce melanin pigment that gives its colour to the skin. *Avabhasini*,



the first layer of *Twak*, may be correlated with Stratum Corneum, which is responsible for the exhibition of *Gaura*, *Shyamadi Varna* and *Prabha* with the help of *Bhrajaka Pitta* present in this layer³⁴. *Adhishtana* of *Dadru Kushtha* is in the *Chaturtha* layer of the *Twak*³⁵, which may be correlated with stratum spinosum and basale.

Dermatophytes display a wide range of fungal strains, predominantly surviving on the keratin-rich matter, which has the ability to penetrate and digest keratinized tissue.

When *Taila* is applied topically in the opposite direction of the hairs, the active components of the ingredients reach the deeper tissues via *Siramukha* of *Romakupa* and *Swedavaha Srotas* due to its *Sukshma* and *Tikshna* properties. Because of its *Tikshna*, *Vishada* and *Sukshma* properties, it removes obstructions in *Swedavaha Srotas* and allows local toxins to flow out through the *Sweda*, clearing the microchannels. Majority ingredients of *Nalpamaradi Taila* having *Kashaya*, *Tikta* & *Madhura Rasa Pradhanata* & *Laghu*, *Ruksha* & *Guru* properties & having *Kapha-Pitta Shamaka Doshakarmata*, which bring *Dosha Samyata* & helpful to reduction of the symptoms.

Sheeta Veerya of the *Nalpamaradi Taila* possibly induced *Pitta Shamaka* effect in skin by improving the *Bhrajaka pitta*.

The potency of the drug may penetrate to the *Chaturtha* layer of the skin and help in scraping off the pathogens, thereby decreasing the pathogenesis of disease and bringing normalcy to the skin by improving the production of melanin. As a result, *Taila* aids as *Doshaghna*, *Krimighna*, *Kandughna* and *Kushthaghna*.

CONCLUSION

Gomutra Haritaki Vati and *Nalpamaradi Taila* demonstrate significant potential in the management of *Dadru* (Dermatophytosis) through their *Rasapanchaka*, *Dosha-Shamaka*, and *Karmukata* properties.

Gomutra Haritaki Vati, with its *Ushna Veerya* and antifungal phytochemicals, enhances *Agni*, clears *Dosha* vitiation, and supports *Samprapti Vighatana*.

Nalpamaradi Taila, with its multi-herbal formulation, exhibits antioxidant, anti-inflammatory, and antifungal effects that alleviate symptoms like *Kandu*, *Raga*, and *Pidaka* while promoting skin health and complexion. Together, they act synergistically to control infection, prevent recurrence, and improve quality of life. Thus, these formulations offer an effective, holistic, and safe *Ayurvedic* approach to *Dadru* management.

REFERENCES

1. Acharya Agnivesha, Charaka Samhitha. Chikitsa Sthana, Kushta Chikitsa, chapter 7, verse 13, In: Shukla V, Tripathi R, editors. Charaka Samhita, 1st edition, Delhi: Chaukhamba Sanskrit Pratishthan, 2013; Vol.II.p.182.
2. Sushruta, Dalhana, Nidana sthana, Kushta Nidana, chapter 5, verse 5, In: Sharma AR, editor. Sushruta Samhita, 1st edition, Varanasi: Chaukhamba Surbharati Prakashan, 2013; Vol.I. p. 494.
3. Geddes AM, Bryceson ADM, Thin RN, Mitchell DM. Diseases due to infection. In: Stuart HR, Iran DP, Mark WJ, Richard PH, editors. Davidson's Principles and Practice of Medicine. 20thed. England: Elsevier publication; 2006: p.1297.
4. Pai V, Ganavallia, Kikkeri NN. Antifungal Resistance in Dermatology. Indian J Dermatol. 2018 Sep-Oct;63(5):361-368.
5. Weitzman I, Summerbell RC. The dermatophytes. Clin Microbiol Re, American Society for Microbiology. April 1995, vol. 8, no. 2, p. 240-259.
6. Singh S, Verma P, Chandra U, Tiwary NK. Risk factors for chronic and chronic-relapsing tinea corporis, tinea cruris and tinea faciei: Results of a case-control study. Indian J Dermatol Venereol Leprol. 2019; 85:197-200.
7. Hazarika D, Jahan N, Sharma A. Changing trend of superficial mycoses with increasing non dermatophyte mold infection: A clinicomycological study at a tertiary referral center in Assam. Indian J Dermatol. 2019; 64:261-5.
8. Patro, Nibedita; Panda, Maitreyee; Jena, Ajaya K.1. The Menace of Superficial Dermatophytosis on the Quality of Life of Patients Attending Referral Hospital in Eastern India: A Cross-sectional Observational Study. Indian Dermatology Online Journal: May-Jun 2019;10(3):262-6.
9. Acharya Agnivesha, Charaka Samhitha. Chikitsa Sthana, Kushtha Chikitsa, chapter 7, verse 30-31, In: Shukla V, Tripathi R, editors. Charaka Samhita, 1st edition, Vol. II. Delhi: Chaukhamba Sanskrit Pratishthan, 2013; Vol. II p.185.
10. Acharya Agnivesha, Charaka Samhitha. Chikitsa Sthana, Kushtha Chikitsa, chapter 7, verse 23, In: Shukla V, Tripathi R, editors. Charaka Samhita, 1st edition, Delhi: Chaukhamba Sanskrit Pratishthan, 2013; Vol.II. p.184.
11. Sodhala, Kayachikitsa Khanda, Kushthachikitsa, verse 150, In: Pandeya GS, editor. Vidyotini Commentary by Indradev tripathi, Gadnigraha, 1st edition, Delhi: Chaukhamba Sanskrit Sansthan, 2011; Vol.II.p.788.
12. Sahasrayogam text with English translation, Parisishtha Prakarana - Taila, verse-3, In: Dr.K.Nishteswar and Dr.R.vidyanath, editors. Sahasrayogam-3rd edition, 2011, Chaukhambha Sanskrit series office, Varansi p.406.
13. Tanmay Ghosh and MK Biswas, Evaluation of anti-bacterial & anti-fungal activity of cow urine against some seed borne microflora, international journal of current micro biology & applied sciences, ISSN:2319-7706, Vol-7, Number-05 (2018).
14. P.Venkatachalam and C.V.Chittibabu, Anti-fungal activity of Terminalia chebula retz fruit extracts, Research article, ISSN:2220-4822,
15. Samhita M Kiran, Priyanka BV and Kiran M Goud. Antimicrobial analysis of Nalpamaradi taila bath soap: In vitro study. Int. J. Res. Ayurveda Pharm. 2023;14(4):33-38 DOI: <http://dx.doi.org/10.7897/2277-4343.1404108>
16. Acharya Bhavamishra, Purva khanda, Gomutra Varga, verse 1,2. In: Mishra B, Sri Vaishya R, editors. Vidyotini, Hindi Commentary, Bhavaprakasha, First Edition, Varanasi Choukhamba Sanskrit Santhan, 2020; Vol.I. p.778.
17. Acharya Bhavamishra, Purva khanda, Haritkyadi Varga, verse 20, 21, 23. In: Mishra B, Sri Vaishya R, editors. Vidyotini, Hindi Commentary, Bhavaprakasha, First Edition, Varanasi Choukhamba Sanskrit Santhan, 2020; Vol.I. p.5. The Ayurvedic Formulary of India, Section-8-Taila, Nalpamaradi Taila, Verse-8:24, Edition-2nd, Part-1, p.138.
18. J.L.N Shastry, Vata chapter, Illustrated Dravyaguna Vijnana, Vol II, Chaukhamba Orientalia, Varanasi reprint edition, 2012: p. 941.
19. J.L.N Shastry, Udumbara chapter, Illustrated Dravyaguna



- Vijnana, Vol II, Chaukhamba Orientalia, Varanasi reprint edition, 2012: p. 499.*
20. J.L.N Shastry, *Ashwattha chapter, Illustrated Dravyaguna Vijnana, Vol II, Chaukhamba Orientalia, Varanasi reprint edition, 2012: p. 944.*
 21. J.L.N Shastry, *Plaksha chapter, Illustrated Dravyaguna Vijnana, Vol II, Chaukhamba Orientalia, Varanasi reprint edition, 2012: p. 946.*
 22. J.L.N Shastry, *Vibitaka chapter, Illustrated Dravyaguna Vijnana, Vol II, Chaukhamba Orientalia, Varanasi reprint edition, 2012: p. 216.*
 23. J.L.N Shastry, *Amalaki chapter, Illustrated Dravyaguna Vijnana, Vol II, Chaukhamba Orientalia, Varanasi reprint edition, 2012: p. 220.*
 24. J.L.N Shastry, *Rakta Chandana chapter, Illustrated Dravyaguna Vijnana, Vol II, Chaukhamba Orientalia, Varanasi reprint edition, 2012: p. 730.*
 25. J.L.N Shastry, *Ushira chapter, Illustrated Dravyaguna Vijnana, Vol II, Chaukhamba Orientalia, Varanasi reprint edition, 2012: p. 558.*
 26. J.L.N Shastry, *Kushtha chapter, Illustrated Dravyaguna Vijnana, Vol II, Chaukhamba Orientalia, Varanasi reprint edition, 2012: p.1028.*
 27. J.L.N Shastry, *Manjishta, chapter, Illustrated Dravyaguna Vijnana, Vol II, Chaukhamba Orientalia, Varanasi reprint edition, 2012: p.277.*
 28. J.L.N Shastry, *Choraka chapter, Illustrated Dravyaguna Vijnana, Vol II, Chaukhamba Orientalia, Varanasi reprint edition, 2012: p.795.*
 29. J.L.N Shastry, *Agaru chapter, Illustrated Dravyaguna Vijnana, Vol II, Chaukhamba Orientalia, Varanasi reprint edition, 2012: p. 474.*
 30. J.L.N Shastry. *Haridra chapter, Illustrated Dravyaguna Vijnana, Vol II, Chaukhamba Orientalia, Varanasi reprint edition, 2012: p. 513.*
 31. J.L.N Shastry, *Parpata chapter, Illustrated Dravyaguna Vijnana, Vol II, Chaukhamba Orientalia, Varanasi reprint edition, 2012: p. 592.*
 32. J.L.N Shastry, *Tila chapter, Illustrated Dravyaguna Vijnana, Vol II, Chaukhamba Orientalia, Varanasi reprint edition, 2012: p. 882*
 33. Sreelakshmi. K. P, Ragunathan Muthuswamy. *A Review on Ethnobotanical, Phytochemical and Pharmacological studies of Nalpamaram. Research Journal of Pharmacognosy and Phytochemistry. 2021; 13(3):136-2. doi: 10.52711*
 34. Sharma PV. *Sushruta Samhita with Nibandhasangraha commentary of Dalhanacharya. Shareera Sthana 4/4. Reprint ed. Varanasi, India: Chaukhamba Orientalia, 2009; 355.*
 35. Acharya Agnivesha, *Charaka Samhitha. Shareerasthana, Shareerasankhya shareeram, chapter 7, verse 4, In: Shukla V, Tripathi R, editors. Charaka Samhita, 1st edition, Delhi: Chaukhamba Sanskrit Pratishthan, 2013; Vol.I.p.154.*