



Exploring *Lavana Kalpana*: A Comprehensive Analysis from Ayurvedic Perspectives

Jeel Patel¹, Dr. Bharti Umretia²

¹PG Scholar, Upgraded Department of Rasashastra and Bhaishajya Kalpana, Government Ayurved College, Vadodara, Gujarat

²Reader and Head Upgraded Department of Rasashastra and Bhaishajya Kalpana, Government Ayurved College, Vadodara, Gujarat

ABSTRACT

Background: *Lavana Kalpana* is a unique dosage form that is prepared by combustion of *Lavana* and other drugs in a sealed earthen vessel, a procedure known as *Antaradhuma Dahana*. Formulations with the same procedure were recorded in numerous classical sources, but the precise name is not given.

Objective: To review *Lavana* formulations with their method of preparation, heating medium, confirmatory test, dose and other aspects based on Ayurvedic texts and analyse the gathered information.

Material and Method: Total 65 Ayurvedic texts were screened for detailed information about *Lavana* formulation, including its ingredients, preparation, properties, uses, dosage, and potential side effects. **Result:** A total of 21 formulations uses the term *Lavana* in their nomenclature from 14 classical texts while 20 formulations from 15 classical texts are prepared using methods like *Lavana Kalpana* but do not label as *Lavana*.

Conclusion: Classical literature has numerous references to *Lavana* formulations. Based upon the review, it can be said that even while *Lavana Kalpana* holds substantial historical significance, there is also a lot of room to enhance its therapeutic application through contemporary clinical research.

KEYWORDS: Combustion, Sealed earthen vessel, Heating pattern

INTRODUCTION

Ayurvedic pharmaceuticals, encompasses the preparation of various formulations with different *Kalpana* (dosage forms) used in the treatment of diseases. This field involves a range of dosage forms, such as *Svarasa* (juice), *Kalka* (paste), *Kvatha* (decoction), *Hima* (cold infusion), *Phanta* (hot infusion), *Sneha* (oil or *Ghee*), *Sandhana* (fermentation), *Kshara* (alkaline preparation) and others. These preparations are designed to enhance the therapeutic properties of medicinal herbs, ensuring their effectiveness and safety in treating various pathological conditions in the body.

Among these various formulations, *Lavana Kalpana* holds a unique place due to its distinct preparatory methods in which *Lavana* (salt) serves as a key ingredient. *Lavana Kalpana* specifically focuses on the use of salt in Ayurvedic therapeutic practices, integrating it into different preparations in a manner that enhances its medicinal properties. *Lavana* is believed to possess significant therapeutic qualities like *Snigdha*, *Ushna*, *Tikshna* and *Dipaniyatama*. It also used in *Ajirna*, *Anaha*, *Vatavyadhi*, *Gulma*, *Shula* and *Udararoga*.¹ This preparation combines *Lavana* with other medicinal substances and is subjected to heat until it forms an ash.

Different heating medium are used to prepare *Lavana Kalpana*. The most common preparation technique among them is called “*Antardhuma*,” or “sealed earthen vessel heating technique.”

Lavana formulations are made using a different origin of ingredients, as described in classical literature, including plants (*Arka*, *Narikela*), minerals (*Mandura*), poisonous substances (*Arka*, *Snuhi*), animal sources (*Kukkuta*, urine and dung of different animal), and alkaline substances (*Tankana*). Primarily, these formulations are used as internal medication in the management of gastrointestinal diseases such as *Shula* (abdominal pain), *Pliharoga* (splenic disorders), *Yakritaroga* (Liver disorders), *Gulma* (abdominal masses), *Udararoga* (abdominal disorders), and other related conditions.

Although *Lavana* formulations for various ailments were referenced in numerous classical literatures, the compositions' names are not explicitly identified as *Lavana*. Additionally, different preparation techniques are evident. Versality has been observed in the preparation, dosage and therapeutic usage of texts from the Charaka Samhita until the 20th century. Consequently, an effort has been made to review and analyze the gathered information related to *Lavana* formulations that have been prepared using *Antardhuma* and other methods.

MATERIALS AND METHOD

In this study, a screening was conducted from 65 Ayurvedic classical texts to gather and analyze data related to *Lavana* formulations, focusing specifically on those that prepared by *Antardhuma Dahana* and other method in combination with other medicinal substances.

RESULTS AND DISCUSSION

A total of 21 *Lavana* formulations are identified from 14 classical texts that titled as *Lavana* in the names of those formulations, while 20 formulations are identified from 15 texts that are prepared using a standard method for *Lavana* formulations but do not nomenclature as the term *Lavana* in the names. These are primarily considered as *Lavana* formulations as well. *Lavana* formulations found in different classical texts are listed in table no. 1.

Table no 1: Different *Lavana* formulations mentioned in classical texts

Sr.no	Name of Formulation	References
1.	<i>Vidangadi Kshara</i>	Cha. Chi.13/80, C.D. 38/3, S.Y. 3/109
2.	<i>Pippalyadi Kshara</i>	Cha. Chi.13/158-168
3.	<i>Pippalyadi Yoga</i>	Cha. Chi.15/173-176
4.	<i>Bhallatakadi Kshara / Lavana</i>	Cha. Chi. 15/177, C.D. 4/24-25, V.S. 20/103, Part 2, 3/81-82, Y.R.P. <i>Grahani Chikitsa</i> , N.A. Part 1, <i>Bhallatakadi Varga</i> , Pg no.322
5.	<i>Panchama Triphaladi Kshara</i>	Cha. Chi.15/188-193, G.N. Part 2, 3/83-88
6.	<i>Ashtanga Lavana</i>	Cha. Chi. 24/177-179, C.D. 18/11-12, B.R. 22/15-16
7.	<i>Vairechanika Lavana Yoga</i>	Cha. Chi.26/24-25, A.S. Chi. 10/52, C.D. 29/6, B.R. 31/34
8.	<i>Patra Lavana</i>	Su. Chi.4/30
9.	<i>Sneha / Kanda Lavana</i>	Su. Chi.4/31, B.R. 26/12
10.	<i>Kalyana Lavana</i>	Su. Chi. 4/32, H.S. 3/11/38-43, V.S. 21/118-119, G.N. Part 2, 4/66-67

11.	<i>Kalyanaka Kshara</i>	A.S. Chi. 10/51, A.H. Chi. 10/51, S.Y. 3/27
12.	<i>Maha Kshara</i>	A.S. Chi. 10/53
13.	<i>Ksharagada</i>	A.H. Chi. 14/103-106
14.	<i>Hingavadi Kshara</i>	A.H. Chi. 15/70-73
15.	<i>Narikela Lavana</i>	C.D. 27/21-22, B.P.M. 30/68, B.R. 30/69, R.T. 14/123-127, N.A. Part 2, <i>Taladi Varga</i> Pg 675, B.S. Pg no 247, A.S.S. Pg no 702
16.	<i>Nadeyadi Kshara / Lavana</i>	C.D. 30/58, V.S. 67/134, G.N. Part 2- 25/52, Y.R. U. <i>Vatavyadhi Chikitsa</i> , S.Y. 3/165
17.	<i>Arka Lavana / Kshara</i>	C.D. 37/43, G.N. Part 2, 32/96-97, R.T. 14/131-132, N.A. Part 2, <i>Arakadi Varga</i> Pg no.7, B.S. Pg no 247, A.S.S. Pg no 702
18.	<i>Putikaranjadi Lavana / Putikadi Churna / Kshara</i>	C.D. <i>Putikaranjadi Lavana</i> , G.N. Part 1, <i>Churna Prakarana</i> , S.Y. 3/78
19.	<i>Abhaya Lavana</i>	V.S. 11/210-214, B.R. 41/32-40, B.S. Pg no 247, A.S.S. Pg no 702
20.	<i>Arogya Lavana</i>	G.N. Part 1, <i>Churna Prakarana</i> ,
21.	<i>Arkapatradi Kshara / Churna</i>	G.N. Part 2, 4/50-5, S.Y. 3/7
22.	<i>Mandura Lavana</i>	G.N. Part 2, 7/58-59, Y.R. P. <i>Pnadu Chikitsa</i>
23.	<i>Chitrakadi Kshara</i>	G.N. Part 2, 32/98
24.	<i>Sharapunkha Lavana</i>	B.P. M. 32/32, N.A. Part 1, <i>Palashadi Varga</i> Pg no.423
25.	<i>Vajra Kshara</i>	B.P. M. 32/36-42, Y.R. P. <i>Udara Chikitsa</i> , B.R. 32/74, R.Chi. 9/38-43, R.K.D. Pu. <i>Gulma/ 42-47</i> , B.R.R.S. Ut. <i>Pliharoga Chikitsa</i> , B.S. Pg no 247
26.	<i>Dviksharadi Yoga</i>	Y.R. P. <i>Ajrna Chikitsa</i>
27.	<i>Agnimukha Lavana</i>	Y.R. P. <i>Udara Chikitsa</i> , B.R. 10/76, B.S. Pg no 247
28.	<i>Kukkuta Lavana</i>	S.Y. 3/31
29.	<i>Mahavriksha Lavana</i>	S.Y. 3/89
30.	<i>Shulahara Kshara</i>	S.Y. 3/122
31.	<i>Sudhakandadi Kshara</i>	S.Y. 3/135
32.	<i>Hingutvakadi Churna</i>	S.Y. 3/145
33.	<i>Kushmandadi Kshara</i>	R.K.D. Pu. <i>Gulma/ 53-58</i>
34.	<i>Plihanataka Kshara</i>	R.T.S.S.P.S. Part 1, Pg. no. 333
35.	<i>Vadavanala Kshara</i>	R.T.S.S.P.S. Part 2, Pg. no 195
36.	<i>Vishaladi Kshara</i>	R.T.S.S.P.S. Part 2, Pg. no 96
37.	<i>Svasari Lavana</i>	R.T.S.S.P.S. Part 2, Pg. no 173
38.	<i>Bruhadi Lavana</i>	N.A. Part 2, <i>Kantakaryadi Varga</i> Pg. no 123

A general preparatory method for *Lavana Kalpana* is not explicitly mentioned in the classical Ayurvedic texts. However, after reviewing various *Lavana* formulations, they can be categorized into four distinct methods as outlined below.

1. *Antaradhuma Puta* method

This is the most common method to prepare *Lavana Kalpana*. The medicinal substance and *Lavana* are placed in an earthen vessel, which is then sealed with a corresponding lid. The joint is covered with a cloth smeared with mud, and the entire setup is subjected to heat. Several formulations in the classical texts follow this preparation method, although the specific names of the formulations are not mentioned. Some *Kshara* preparations are also made using this method, though all of them are primarily classified as *Lavana Kalpana*. This method reveals a distinctive preparation technique for *Mandura Lavana*. In this process, *Tapta Mandura* is first subjected to *Nirvapa* in *Gomutra*. Following this, an equal amount of *Saindhava* is mixed with the *Mandura*. The resulting mixture is then exposed to *Antaradhuma* heat using *Bibhitaka Kashtha Agni*.² The formulations prepared using the *Antardhuma Puta* method are provided in table no. 2.

Table No. 2: Listing of formulations having *Anatardhuma Puta* Method

Sr. no.	Name of <i>Lavana Kalpana</i>	Sr. no.	Name of <i>Lavana Kalpana</i>
1.	<i>Vidangadi Kshara</i>	2.	<i>Kalyana Kshara</i>
3.	<i>Pippalyadi Kshara</i>	4.	<i>Maha Kshara</i>
5.	<i>Pippalyadi Yoga</i>	6.	<i>Ksharagada</i>
7.	<i>Bhallatakadi Kshara / Lavana</i>	8.	<i>Hingavadi Kshara</i>
9.	<i>Panchama Kshara</i>	10.	<i>Arka Lavana</i>
11.	<i>Vairechanika Lavana</i>	12.	<i>Narikela Lavana</i>
13.	<i>Patra Lavana</i>	14.	<i>Putikaranjadi Lavana</i>
15.	<i>Sneha Lavana</i> (Su.Chi. 4/31)	16.	<i>Arogya Lavana</i>
17.	<i>Kalyana Lavana</i> (Su. Chi. 4/32)	18.	<i>Kalyana Lavana</i> (H.S. 3/11/38)
19.	<i>Kalyana Lavana</i> (V.S. 21/118)	20.	<i>Arkapatradi Kshara</i>
21.	<i>Vajra Kshara</i>	22.	<i>Chitrakadi Kshara</i>
23.	<i>Dviksharadi Yoga</i>	24.	<i>Agnimukha Lavana</i>
25.	<i>Sneha Lavana</i> (B.R. 26/12)	26.	<i>Mahavriksha Lavana</i>
27.	<i>Arkapatradi Lavana</i>	28.	<i>Shulahara Kshara</i>
29.	<i>Plihantaka Kshara</i>	30.	<i>Sudhakandadi Kshara</i>
31.	<i>Vadavanala Kshara</i>	32.	<i>Hingu tvakadi Churna</i>
33.	<i>Svasari Lavana</i>	34.	<i>Kukkuta Lavana</i>
35.	<i>Vishaladi Kshara</i>	36.	<i>Bruhati Lavana</i>
37.	<i>Mandura Lavana</i>	38.	<i>Kushmandadi Kshara</i>
39.	<i>Ajmodadi Bhasma</i>		

2. *Lehapaka* method

First, the ashes of the plants are prepared, and water is added in the specified amount. This mixture is then boiled with *Saindhava*. Once the mixture has been concentrated, the powdered forms of the other listed ingredients are added and thoroughly blended to obtain the finish product. e.g. *Abhaya Lavana*, *Mahavriksha Lavana*.

3. *Ksharapaka* method

The specified ingredients are first burnt with *Lavana*, and then the *Ksharapaka* procedure is carried out. e.g. *Kalyana Lavana*³, *Nadeyadhya Lavana*⁴

4. *Samyojana* method

In this method mentioned ingredients are taken with *Lavana* and mixed together. e.g. *Ashtanga Lavana*.

5. Other method

A distinctive preparatory method for *Sharapunkha Lavana* is described in the *Adarsha Nighantu*. In this process, the *Antaradhuma Bhasma* (ash) of *Sharapunkha* is combined with 8 parts of water. After letting the mixture settle, the solid particles will form a sediment at the bottom of the vessel.

In the text, *Adarsha Nighantu*, a unique manner of preparation for *Sharapunkha Lavana* is outlined. This procedure involves mixing eight parts water with the *Antaradhuma Bhasma* (ash) of *Sharapunkha*. The ash sediments at the bottom of the vessel once the mixture has settled. After decanting the supernatant liquid, the sedimented material is then heated till it turns into a dry powder.

The solid material is then carefully separated and heated until it transforms into a dry powder.⁵

To prepare *Lavana* formulations, different quantum of heat is mentioned in the classics text as described in table no.3

Table no. 3: Heating media of different *Lavana Kalpana*

Sr.no.	Name of <i>Lavana Kalpana</i>	Heating media
1.	<i>Narikela Lavana (Nirjala)</i>	<i>Mahaputa</i>
2.	<i>Arka Lavana</i>	<i>Gajaputa</i>
3.	<i>Vajra Kshara</i>	
4.	<i>Vishaladi Kshara</i>	
5.	<i>Plihanika Churna</i>	
6.	<i>Svasari Lavana</i>	
7.	<i>Kukkuta Lavana</i>	<i>Mandagni</i>
8.	<i>Mahavriksha Lavana</i>	Wood of <i>Karanja</i>
9.	<i>Mandura Lavana</i>	Wood of <i>Bibhitaka Kashtha</i>
10.	<i>Vadavanala Kshara</i>	1 <i>Yama</i> (3 hours) heating

Details of peak temperature and heating duration with *Svangasheeta* from research articles, along with a comparison to classical heating media of different *Lavana Kalpana*, are listed in the table below.

Table no. 4: Temperature details of different *Lavana Kalpana*

Sr. no.	Name of <i>Lavana Kalpana</i>	Heating media given in Classics	Peak temperature	Time duration
1.	<i>Arka Lavana</i> ⁶	<i>Gajaputa</i>	782° C	12 hours
2.	<i>Narikela Lavana (Sajala)</i> ⁷	-	424° C	Upto 12 hours
3.	<i>Narikela Lavana (Nirjala)</i> ⁸	<i>Mahaputa</i>	1050° C	24 hours

The dose of *Lavana* formulations varies according to the formulation composition and diseases conditions as mentioned in table no.5

Table no. 5: Dose of different *Lavana Kalpana*

Sr. no.	Name of Formulation	Dose
1.	<i>Pippalyadi Kshara</i>	1 <i>Bidalapadaka</i> (12 g)
2.	<i>Pippalyadi Yoga</i>	1 <i>Panitala</i> (12 g)
3.	<i>Panchama Triphaladi Kshara</i>	1 <i>Panitala</i> (12 g)
4.	<i>Hingavadi Kshara</i>	1 <i>Bidalapadaka</i> (12 g)
5.	<i>Narikela Lavana</i>	1-2 g (AFI)
6.	<i>Vajra Kshara</i>	2 <i>Tanka</i> (8 g)
7.	<i>Dviksharadi Yoga</i>	2 <i>Gunja</i> (250 mg)
8.	<i>Arka Lavana</i>	1/2 <i>Masha</i> (500 mg) (R.T. 14/131-132), 1 g (AFI)
9.	<i>Arogya Lavana</i>	1/2 - 1 <i>Karsha</i> (6-12 g)
10.	<i>Kushamandadi Kshara</i>	1 <i>Bidalapadaka</i> (12 g)
11.	<i>Plihantaka Kshara</i>	1-2 <i>Masha</i> (1-2 g)
12.	<i>Vadavanala Kshara</i>	1-3 <i>Masha</i> (1-3 g)
13.	<i>Vishaladi Kshara</i>	1-3 <i>Masha</i> (1-3 g)
14.	<i>Svasari Lavana</i>	2-4 <i>Ratti</i> (242 mg-484 mg)
15.	<i>Bruhati Lavana</i>	1/8-1/4 <i>Tola</i> (1.5 – 3 g)

Acharya Sadananda Sharma referred to the “*Kajjalaprabha Varna*” of the final product in relation to *Narikela Lavana*⁹ and *Arka Lavana*.¹⁰

Nomenclature of *Lavana Kalpana*

The nomenclature of various *Lavana Kalpana* formulations can be categorized based on considerations such as the ingredients used, the number of ingredients, their therapeutic indications, properties, and other relevant characteristics as presented in table 6.

Table no 6: Nomenclature of different *Lavana Kalpana*

Sr.no	Category	Name of formulation	Consideration for nomenclature
1.	Based on ingredients used	<i>Vidangadi Kshara</i>	<i>Vidanga</i> used as first ingredient of this formulation
		<i>Pippalyadi Kshara</i>	<i>Pippali</i> used as first ingredient of this formulation
		<i>Pippalyadi Yoga</i>	
		<i>Bhallatakadi Kshara / Lavana</i>	<i>Bhallataka</i> used as first ingredient of this formulation
		<i>Vairechanika Lavana Yoga</i>	<i>Virechna Dravya</i> used as ingredient
		<i>Patra Lavana</i>	Different <i>Patra</i> (leaves) are used as ingredient
		<i>Sneha / Kanda Lavana</i>	4 <i>Sneha Dravya</i> as dominant ingredient
		<i>Maha Kshara</i>	<i>Kshara</i> used as ingredient
		<i>Ksharagada</i>	Used as <i>Agada</i> (in poisoning)
		<i>Hingavadi Kshara</i>	<i>Hingu</i> as first ingredient of this

			formulation
		<i>Narikela Lavana</i>	<i>Narikela</i> used as ingredient
		<i>Nadeyadhya Lavana</i>	<i>Nadeyi</i> as first ingredient of this formulation
		<i>Arka Lavana</i>	<i>Arka</i> used as dominant ingredient
		<i>Putikaranjadi Lavana</i>	<i>Putikaranja</i> as first ingredient of this formulation
		<i>Abhaya Lavana</i>	<i>Abhaya (Haritaki)</i> used in more quantity
		<i>Arkapatradi Kshara</i>	<i>Arka</i> and other drugs used as ingredient
		<i>Mandura Lavana</i>	<i>Mandura</i> used as ingredient
		<i>Chitrakadi Kshara</i>	<i>Chitraka</i> as first ingredient of this formulation
		<i>Sharapunkha Lavana</i>	Formulation made with <i>Sharapukha</i> only
		<i>Vajra Kshara</i>	<i>Vajra (Snuhi) Kshira</i> used as <i>Bhavna</i>
		<i>Dviksharadi Yoga</i>	<i>Dvikshara (Yava, Svarjika)</i> used as ingredient
		<i>Kukkuta Lavana</i>	Mixture of mentioned medicinal substances are filled in <i>Kukkuta</i> bird body
		<i>Mahavirksha Lavana</i>	<i>Mahavirksha (Sudhakanda)</i> used as ingredient
		<i>Sudhakandadi Kshara</i>	<i>Sudhakanda</i> as first ingredient of this formulation
		<i>Hingutvakadi Churna</i>	<i>Hingu</i> and <i>Tvaka</i> used as ingredient
		<i>Kushmandadi Kshara</i>	Mixture of mentioned medicinal substances are filled in <i>Kushmanda</i>
		<i>Vishaladi Kshara</i>	<i>Vishala (Indrayana) Svarasa</i> used for <i>Bhavna</i> and then mixture filled in <i>Indrayana</i> fruit and subjected to <i>Gajaputa</i> .
		<i>Bruhati Lavana</i>	<i>Bruhati</i> used as dominant ingredient
		<i>Panchama Triphaladi Kshara</i>	Used of <i>Panchalavana</i> (5 types of <i>Lavana</i>) and <i>Triphaladi</i> drugs.
2.	Based on number of ingredients used	<i>Ashtanga Lavana</i>	Used of 8 ingredients
3.	Based on indications of formulation	<i>Shulahara Kshara</i>	Used in <i>Shularoga</i>
		<i>Plihanataka Kshara</i>	Used in <i>Pliharoga</i>
		<i>Svasari Lavana</i>	Used in <i>Svasa</i>
4.	Based on effect of formulation	<i>Kalyana Lavana</i>	<i>Kalyanakari</i> effect
		<i>Kalyanaka Kshara</i>	
		<i>Arogya Lavana</i>	<i>Arogyadayi</i> effect
5.	Based on action of formulation	<i>Agnimukha Lavana</i>	<i>Vahnivardhana (Agnivardhana)</i> action
		<i>Vadavanala Kshara</i>	It increases <i>Anala (Agni)</i>

Based on the review, it can be said that the below listed formulations stated in table no. 7 are exclusively considered as *Lavana Kalpana* which are prepared using a standard method.

Table no. 7. Name of *Lavana* formulations prepared by standard methods

Sr. no.	Name of <i>Lavana Kalpana</i>	Sr. no.	Name of <i>Lavana Kalpana</i>
1.	<i>Vairechanika Lavana</i>	2.	<i>Patra Lavana</i>
3.	<i>Sneha Lavana</i> (Su.Chi. 4/31)	4.	<i>Kalyana Lavana</i> (Su. Chi. 4/32)
5.	<i>Kalyana Lavana</i> (V.S. 21/118)	6.	<i>Kalyana Lavana</i> (H.S. 3/11/38)
7.	<i>Arka Lavana</i>	8.	<i>Sneha Lavana</i> (B.R. 26/12)
9.	<i>Narikela Lavana</i>	10.	<i>Agnimukha Lavana</i>
11.	<i>Arkapatradi Lavana</i>	12.	<i>Mahavriksha Lavana</i>
13.	<i>Kukkuta Lavana</i>	14.	<i>Mandura Lavana</i>
15.	<i>Bruhati Lavana</i>	16.	<i>Svasari Lavana</i>
17.	<i>Putikaranjadi Lavana</i>	18.	<i>Bhallatakadi Lavana</i>
19.	<i>Abhaya Lavana</i>	20.	<i>Nadeyadhya Lavana</i>
21.	<i>Sharapunkha Lavana</i>		

DISCUSSION

Lavana Kalpana emphasizes the use of *Lavana* as a key ingredient, combined with other medicinal substances. Most *Lavana* preparations follow *Antardhuma Dahana* method, which involves heating in a sealed earthen vessel. However, many classical texts described formulations that use the same method of preparation, but the names of the formulations are not clearly mentioned. As a result, this study focuses on analysing data related to *Lavana Kalpana* and formulations that utilize the *Antardhuma Dahana* method with *Lavana*.

In the Charaka Samhita, the distinction between *Kshara* and *Lavana* is not specified, and the preparation method for both *Kalpana* involves the *Antardhuma Dahana* method. In the preparation of *Vairechanika Lavana*, an equal quantity of *Lavana* and other drugs are added.¹¹ Although *Acharya* Charaka does not mention the name of the formulation, but mentioned that finished product is considered as *Lavana*, so it is primarily regarded as *Lavana Kalpana*. Other formulations are also found to follow the same method of preparation, but they are all categorized under the name of *Kshara*.

Acharya Sushruta was the first to clearly mentioned the method for preparing *Lavana Kalpana*, providing proper terminology for these formulations. He described a distinct preparation method for *Kalyanaka Lavana*, in which plant drugs, along with *Saindhava*, are first burnt in a sealed earthen vessel and then further processed in a manner similar to the *Kshara* preparation.¹² Due to the use of *Antardhuma Dahana*, the formulation is named *Lavana*. This clarifies that for *Lavana Kalpana*, *Antardhuma Dahana* is required, whereas in *Kshara* preparation, first ash is prepared by *Bahirdhuma Dahana* and then *Kshara* is prepared by decantation and evaporation method.

In both *Astanga Samgraha* and *Ashtanga Hridaya*, the preparation of *Lavana Kalpana* is not clearly outlined. The first references to *Narikela Lavana*,¹³ *Arka Lavana*,¹⁴ and *Putikaranjadi Lavana*¹⁵ are found in *Chakradatta*. In *Gadanigraha*, the maximum number of formulations have a preparatory method similar to *Lavana Kalpana*. The preparation of *Nadeyadhya Lavana*¹⁶ is identical to *Kalyana Lavana* described by *Acharya* Sushruta. Due to the similarity in preparation, it may be categorized as *Lavana* in *Gadanigraha*, although other texts consider it as *Kshara*.

In *Rasagrantha*, only *Rasatarangini* provides a detailed description of *Lavana* formulations. This text outlines the method of preparation, characteristics of the finished product, dose, indications, and *Anupana* for *Arka Lavana* and *Narikela Lavana*.¹⁷ In *Rasatantra Sara evam Siddha Rayoga Samgraha*, many formulations follow a preparation method similar to *Lavana Kalpana* but are classified as *Kshara*. This text does not clearly distinguish between *Kshara* and *Lavana*.

Kalyana Lavana, as mentioned in the *Sushruta Samhita*,¹⁸ *Harita Samhita*,¹⁹ and *Vangasena Samhita*²⁰ contains different ingredients in each text, making them distinct formulations under the same name. Similarly in *Sneha Lavana*, which is mentioned in both the *Sushruta Samhita*²¹ and *Bhaishajya Ratnavali*,²² where the formulations differ due to variations in ingredients. However, the method of preparation for both formulations is similar to the *Antardhuma* method of *Lavana Kalpana*. In the preparation of *Sharapunkha Lavana*, the *Antardhuma Bhasma* of *Sharapunkha* is used.²³ This could be the reason it is classified as *Lavana*, as noted in *Adarsha Nighantu*. Both *Bhaishajya Samhita*²⁴ and *Ayurveda Sara Samgraha*²⁵ have separate chapters, but only formulations are listed. A unified description of *Lavana* as *Kalpana* is not provided in these texts.

CONCLUSION

A proper definition of *Lavana Kalpana* has not found in any classical literature. However, based on the review of these formulations, *Lavana Kalpana* is considered a therapeutic preparation in which *Lavana* is the primary ingredient (except *Sharapunkha Lavana*) and *Antardhuma Bhasma* of medicinal substances are prepared (except *Ashtanga Lavana*). The resulting product is either used directly for therapeutic purposes or further processed before being used therapeutically. Different heating media are required for different formulations, as this may depend on factors such as the properties and quantities of the ingredients used, as well as any other relevant factors. However, rich source of *Lavana Kalpana* found in classical literature, only a few studies have been conducted in this area. To better understand its full potential, there is a vast scope for further research into *Lavana Kalpana*. Continued scientific validation is necessary to explore its mechanisms, therapeutic applications, and to establish its efficacy in modern medicine.

REFERENCES

- ¹ Agnivesha, Charaka, Dridhabala, Charaka Samhita, *Sutra Sthana*, cha.1, verse.93, edited and translated by Kashinatha Pandeya and Girakhanatha Chaturavedi, Reprint, Chaukhambha Bharti Academy, Varanasi, 2020;47
- ² Acharya Shodhala, Gada Nigraha by dr. Indradev Tripathi, 2nd part, *Kayachikitsa Khanda*, cha 7, verse 58, Varanasi: Chaukhambha Sanskrita Sansthana; Reprint 2022, pg 231-235
- ³ Sushruta, Sushruta Samhita, *Chikitsa Sthana*, cha.4, verse 32 edited and translated by Dr. Ambikadatta Shashtri, Reprint, Chaukhambha Sanskrit sansthan, Varanasi, 2021;36-37
- ⁴ Acharya Shodhala, Gada Nigraha by dr. Indradev Tripathi, 2nd part, Cha 25, verse 52, Varanasi: Chaukhambha Sanskrita Sansthana; Reprint 2022, pg 607
- ⁵ Bapalal Vaidya, Nighantu Adarsha, volume-1, *Palashadi Varga*, Reprint, Varanasi: Chaukhambha Bharti Academy; 2023; 423
- ⁶ Shreekutti P.V. et. al., Preparation and Physicochemical analysis of *Arka Lavana*, International Journal of Ayurveda and Pharma Research, October 2023, Vol 11, Issue 10, pg 79-85
- ⁷ Golecha Paras D. et. al., Comparative Analytical study of *Sajala* and *Nirjala Narikela Lavana*, International Journal of Ayurveda and Pharma Research, June, 2016, Vol 4, Issue 6, pg 54-57
- ⁸ Golecha Paras D. et. al., Comparative Analytical study of *Sajala* and *Nirjala Narikela Lavana*, International Journal of Ayurveda and Pharma Research, June, 2016, Vol 4, Issue 6, pg 54-57
- ⁹ Pranacharya Sadananda Sharma, *Rasa Tarangini* with *Tarangini hindi tika*, commentary by Dr. Devnath Gautam, cha 14, verse 127 and 132 Varanasi, Chaukhambha Surbharti Prakashana, reprint 2018, pg 328-329

- ¹⁰ Pranacharya Sadananda Sharma, Rasa Tarangini with Tarangini hindi tika, commentary by Dr. Devnath Gautam, cha 14, verse 132 Varanasi, Chaukhambha Surbharti Prakashana, reprint 2018, pg 330-331
- ¹¹ Acharya Charaka, Charaka Samhita by Pandita Kashinath Pandey and Dr. Gorakhanath Chaturvedi, Chikitsa Sthana, cha 26, verse 24, Varanasi; Chaukhambha Bharti Academy, Reprint 2021, pg 646
- ¹² Sushruta, Sushruta Samhita, *Chikitsa Sthana*, cha.4, verse 32 edited and translated by Dr. Ambikadatta Shashtri, Reprint, Chaukhambha Sanskrit sansthan, Varanasi, 2021;36-37
- ¹³ *Acharya* Chakrapanidatta, Chakradutta, with Vaidyaprabha Hindi commentary by Dr.Indradeva Tripathi, edited by Prof.Ramanath Dwivedi. Reprint, Ch.27.Ver.21. Varanasi: Chaukhambha Sanskrit Bhavana; 2019. pg. 183
- ¹⁴ *Acharya* Chakrapanidatta, Chakradutta, with Vaidyaprabha Hindi commentary by Dr.Indradeva Tripathi, edited by Prof.Ramanath Dwivedi. Reprint, Ch.37.Ver.43. Varanasi: Chaukhambha Sanskrit Bhavana; 2019. pg. 228
- ¹⁵ *Acharya* Chakrapanidatta, Chakradutta, with Vaidyaprabha Hindi commentary by Dr.Indradeva Tripathi, edited by Prof.Ramanath Dwivedi. Reprint, Ch.30.Ver.42. Varanasi: Chaukhambha Sanskrit Bhavana; 2019. pg. 195
- ¹⁶ *Acharya* Shodhala, Gada Nigraha by dr. Indradev Tripathi, 2nd part, Cha 25, verse 52, Varanasi: Chaukhambha Sanskrita Sansthana; Reprint 2022, pg 607
- ¹⁷ Pranacharya Sadananda Sharma, Rasa Tarangini with Tarangini hindi tika, commentary by Dr. Devnath Gautam, cha 14, verse 127 and 132 Varanasi, Chaukhambha Surbharti Prakashana, reprint 2018, pg 330-331
- ¹⁸ Sushruta, Sushruta Samhita, *Chikitsa Sthana*, cha.4, verse 32 edited and translated by Dr. Ambikadatta Shashtri, Reprint, Chaukhambha Sanskrit sansthan, Varanasi, 2021;36-37
- ¹⁹ Harita, Harita Samhita, *Trutiya Sthana*, cha. 11, verse 38-43, edited and translated by Vaidya Jaymini Pandey, Reprint, Varanasi, Chaukhambha Vishvabharati; 2022; 325
- ²⁰ Vangasena, Vangasena Samhita, edited and translated by Pandit Hariharaprasad Pandya, cha 21, verse 18, Varanasi: Chaukhambha Sanskrit Prakashan; Reprint 2016 pg 307
- ²¹ Sushruta, Sushruta Samhita, *Chikitsa Sthana*, cha.4, verse 31 edited and translated by Dr. Ambikadatta Shashtri, Reprint, Chaukhambha Sanskrit sansthan, Varanasi, 2021;36
- ²² Bhaishjya Ratnavali, cha. 26, verse 12 edited by Dr. Siddhinandana Mishra, Reprint, Chaukhambha Surbharti Prakashana, Varanasi, 2024; 519
- ²³ Bapalal Vaidya, Nighantu Adarsha, volume-1, *Palashadi Varga*, Reprint, Varanasi: Chaukhambha Bharti Academy; 2023; 423
- ²⁴ Atridev Vidhyalankara, Bhaishjya Samhita, *Panaka, Lavana, lepa, Dhuma Prakarana*, Maya Press, Iahabada, reprint 1965, pg 27
- ²⁵ Anonymous, Ayurveda Sara Samgraha, Shri Vaidhyanatha Ayurveda Bhawana Limited, Alhabada: *Kshara Lavana Satva Prakarana*, Reprint 2021 pg. 697