



## LAVANA KALPAS: A REVIEW

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### ABSTRACT

In Ayurveda Pharmaceutics broad spectrum of dosage forms are mentioned. In it Lavana Kalpas is one where lavana (salt) is the main ingredient in the formulation. It is prepared by combining lavana along with different herbs and subjecting to heat. Heat pattern is different for different lavana kalpas but for most of the lavana kalpas closed method of heat is employed by keeping in Sharava samputa. With the advent of technology modern machineries are employed in the preparations and research works have been carried out to analyse the lavana kalpas prepared with conventional and modern techniques. Though many lavana kalpas are mentioned in the literature of Ayurveda Pharmaceutics only few lavana yogas are in practice and there remains a wide scope for research in this dosage form.

**KEY WORDS:** Lavana, Salt, Gulma, Ayurveda Pharmaceutics, Vatarogas

### INTRODUCTION

Lavana Kalpana are the preparations consisting of Saindhava lavana and the ash of the drug; obtained after igniting the drug and salt in a closed samputa<sup>1</sup>. Lavana is vishyandana, ushna and does pachana of doshas and because it undergoes paka after samskara it is beneficial in Vatarogas<sup>2</sup>.

When a detailed literary review was carried out it is observed that there are many lavana kalpas mentioned though only few are in practice. Different methods of preparation and different fuel are mentioned for the preparation of various lavana kalpas.

Method of Preparation: Based on the method adopted for preparation it can be classified as

1. Lehapaka vidhi<sup>3</sup>: The drugs to be added in the form of decoction are first boiled in water and the strained decoction is condensed again on fire along with the lavana. To that concentrated decoction the powder made up of the other drugs in the recipe is added and mixed well to obtain the Lavana Kalpa.  
Ex. Abhaya Lavana
2. Putapaka vidhi<sup>4</sup>: Raw drug along with Lavana is taken in an earthen vessel called Sharava, closed with another earthen ware and the joint is sealed with mud smeared cloth and subjected to puta (heat) with cowdung cakes.  
Ex. Arka Lavana

Pakalakshana (Confirmatory test)

First method<sup>5</sup>: Darvipralepa as in Lehyapaka (Confectionary).  
Second method<sup>6</sup>: Red hot colour of the earthen ware indicative of heat to turn the contents into ash.

**Test of perfection**<sup>7</sup>: Kajjala varna is said to be the test of perfection in the context of Narikela lavana.

Matra: 2 Masha (2g)

Preservation: To be kept in airtight containers as lavana is hygroscopic in nature.

Shelf life<sup>8</sup>: 5 years

**Type of Fuel:** Mahaputa is said for Narikela Lavana, Gajaputa for Shwasari lavana, Kukkuta lavana- Mandagni (mild heat), heat with the wood of Karanja- for Mahavruksha lavana, etc.

### Arka Lavana<sup>9</sup>

Arka Patra (*Calotropis procera*) - 1 Part

Saindhava lavana (Rock salt) - 1 Part

Method: Mature arka leaves are taken and spread in an earthen saucer. Over it Saindhava lavana powder is spread. On it mature leaves of arka are placed and such alternate layers of Arka patra and saindhava lavana are placed such that the top and the bottom layer are of the leaves. Then it is closed with another earthen saucer. The joint between the saucers is plastered with mud smeared cloth, dried and is then subjected to heat by placing in a pit filled with cow dung cakes. After self cooling the sharava samputa is removed and the whole material is powdered and preserved in air tight containers.

Dose: 12-24 g

Indication: Gulma (abdominal lump), Yakrutpleehroga (Hepatosplenomegaly), Udararoga (diseases of the abdomen)

Anupana as per the disease-

Pleeha-with Kumari rasa (*Aloe barbadensis*)

Gulma-with Eranda Taila (oil of *Ricinus communis*) and luke warm milk

Udararoga- with Gomutra (Urine of Cow) and ErandaTaila

### Narikela Lavana<sup>10</sup>

#### Ingredients:

Mature Coconut (*Cocos nucifera*) - 1  
Saindhava Lavana (Rock salt) - 120g

Method: A mature coconut is dehusked, a hole is made in one of the eyes, the water is removed and Saindhava Lavana is filled. The coconut is then wrapped with mud smeared cloth, dried and then subjected to heat in a pit with cowdung cakes. The heat said here is Mahaputa (heat given with 1500 cowdung cakes). After self cooling it is removed and the coconut shell is removed and along with the kernel, the whole material is powdered and preserved in air tight containers.

In another reference<sup>11</sup> it is mentioned to fill the Coconut with Saindhava lavana (Quantity sufficient) without removing the coconut water and prepare the Narikela Lavana.

Dose: 2g

Indication: Pittanashana, Amlapitta (hyperacidity), vataja-pittaja-kaphaja-sannipataja Shula (colic).

### Patra Lavana<sup>12</sup>

Ingredients: Eranda (*Ricinus communis*), Mushkaka (*Schrebera swietenoides*), Karanja (*Pongamia pinnata*), Vasa (*Adhatoda vasica*), Araghwada (*Cassia fistula*) and Chitraka (*Plumbago zeylanica*) leaves and Saindhava lavana (Rock salt)

Method: Eranda, Mushkaka, Karanja, Vasa, Araghwada and Chitraka leaves are taken. Saindhava lavana is sprinkled on it; closed in a sharava samputa and subjected to heat by placing in a pit filled with cow dung cakes. After self cooling the sharava samputa is removed and the whole material is powdered and preserved in air tight containers.

Indication: Vataroga (diseases because of Vata dosha)

### Kanda Lavana<sup>13</sup>

Ingredients: Snuhi (*Euphorbia neriifolia*), Vrutaka, Shigru (*Moringa pterygosperma*), all four Sneha (Ghrita, Vasa, Taila, Majja)

Method: All the ingredients are mixed with equal quantity of Lavana, filled in an earthen pot over it all snehas are put and closed with an earthen saucer and subjected to heat by placing in a pit filled with cow dung cakes. After self cooling the sharava samputa is removed and the whole material is powdered and preserved in air tight containers. This lavana is also termed as Sneha lavana.

Dose: 1-2 g

Indication: Vata rogas (diseases caused by Vata dosha)

### Kalyana Lavana<sup>14</sup>

Ingredients: Gandeera (*Euphorbia neriifolia*), Palasha (*Butea monosperma*), Kutaja (*Holarrhena antidysenterica*), Bilwa (*Aegle marmelos*), Arka (*Calotropis procera*), Snuhi (*Euphorbia neriifolia*), Patala (*Stereospermum suaveolens*), Paribhadra (*Erythrina indica*), Agnimantha (*Premna integrifolia*), Shobhanjana (*Moringa pterygosperma*), Kadamba nimba (*Anthocephalus cadamba*), Atarusa (*Adhatoda vasica*), Naktamala (*Pongamia pinnata*), Bruhatiphala (fruit of *Solanum*

*indicum*), Kantakari (*Solanum xanthocarpum*), Bhallataka (*Semecarpus anacardium*), Ingudi, Sahachara (*Barleria prionitis*), Indravaruni (*Citrullus colocynthis*), Shweta parijata, Mokshava Ashoka (*Saraca asoca*), Lavana (Rock salt), Pippali (*Piper longum*) and Hingu (*Ferula foetida*)

Method: Gandeera, Palasha, Kutaja, Bilwa, Arka, Snuhi, Patala, Paribhadra, Agnimantha, Shobhanjana, Kadambanimba, Atarusa, Naktamala, Kutaja, Bruhatiphala, Kantakari, Bhallataka, Ingudi, Sahachara, Indravaruni, Shwetaparijata, Mokshava, Ashoka- the mula (roots), patras (leaves), shaka (branches) are taken mixed with Lavana and subjected to heat to prepare Bhasma (ash). Then it's cooked like Kshara Kalpana. To this prepared Kshara, Pippali and Hingu powders are added and mixed well.

Dose: 12-24g

Indication: Vataroga (diseases because of Vata dosha), Gulma (abdominal lump), Pleeha (disease of the spleen), Arsha (Haemorrhoids), Arochaka (loss of appetite), Kasa (Cough), Krimi (bacteria).

### Abhaya Lavana<sup>15</sup>

Ingredients: ParibhadraT wak (*Erythrina indica*), Palsaha (*Butea monosperma*), Arka (*Calotropis procera*), Snuhi (*Euphorbia neriifolia*), Apamarga (*Achyranthes aspera*), Chitraka Panchanga (whole plant of *Plumbago zeylanica*), Varuna (*Crataeva nurvala*), Agnimantha (*Premna integrifolia*), Punarnava (*Boerhavia diffusa*), Gokshura (*Tribulu terrestris*), Kanthakari (*Solanum xanthocarpum*), Karanja (*Pongamia pinnata*), Aparajita (*Clitoria ternatea*), Katutumbi, Rakta Punarnava, Haritaki churna (*Terminalia chebula*), Jeeraka (*Cuminum cyminum*), Shunti (*Zingiber officinale*), Maricha (*Piper nigrum*), Pippali (*Piper longum*), Hingu (*Ferula foetida*), Ajamoda (*Apium graveolens*), Kushta (*Saussurea lappa*), Kachora (*Curcuma zedoaria*), Saindhava Lavana (Rock salt)

Method: Paribhadra Twak, Palsaha, Arka, Snuhi, Apamarga, Chitaka Panchanga, Varuna, Agnimantha, Punarnava, Gokshura, Kanthakari, Karanja, Aparajita, Katutumbi, Rakta Punarnava are taken pounded and after drying it is burnt to prepare ash. To one part of ash, 25 parts of water is added and kept. Later the ash is macerated and the Kshara jala is separated and it is heated till it thickens. To this one part of Saindhava Lavana, half part of Haritaki churna, 6 parts of Gokshura are added and cooked. When paka is about to complete Jeeraka, Shunti, Maricha, Pippali, Hingu, Ajamoda, Kushta, Kachora-24g each is added in powder form and mixed well. Later after it cools it is preserved.

Dose: 1-2g

Indication: Koshta baddhata, Yakru-pleeharoga (Hepato-splenic disorders), Udara, Adhmana (flatulence), Gulma (abdominal lump), Ashtila (Prostatic hypertrophy), Agnimandya (loss of appetite), Ajeerna, Shula (pain), Shiroroga (head ache), Hrudrog (Heart ailments).

### Shwasari Lavana<sup>16</sup>

Ingredients: Arka (*Calotropis procera*), Ghrita (Ghee), Saindhava lavana (Rock salt)

Method: In an earthen pot Arka leaves are spread. Ghrita is spread over the leaves and over it Saindhava lavana is sprinkled. Such layers are kept in the pot, closed with an earthen saucer and subjected to heat (Gajaputa-heat with 1000 cowdung cakes),

after sealing with mud smeared cloth. After self- cooling the lid is removed and the whole material is powdered. It is mixed with Arka dugdha (latex of *Calotropis procera*) and made into lehya consistency (confectionary consistency), placed in a pot and again subjected to Gajaputa. After self- cooling it is removed and preserved in air tight containers.

Dose: 250mg-500mg with Honey

Indication: Shwasa (asthma)

In acute condition it is given 2-3 times every hour. It helps in expelling out the Kapha.

#### Putikadi Lavana<sup>17</sup>

Ingredients: Putika leaves (*Holoptelea integrifolia*), Indraravuni (*Citrullus colocynthis*), Chavya (*Piper chaba*), Chitraka (*Plumbago zeylanica*), Trikatu, Saindhava Lavana (Rock salt)

Method: The ingredients are placed, over it saindhava lavana is put and such alternate layers are kept in a pot, closed with an earthen saucer and subjected to heat.

Indication: Gulma (abdominal lump), Udararoga, Pandu (anaemia), Arshas (piles).

#### Vairechanika Lavana<sup>18</sup>

Ingredients: Hingu (*Ferula foetida*), Arka (*Calotropis procera*), Punarnava (*Boerhavia diffusa*), Dashamula, Snuhi (*Euphorbia nerifolia*), Chitraka (*Plumbago zeylanica*) and five Sneha (oileanous matter)

Method: The fruits and roots of drugs mentioned under purgatives mentioned by Charaka are taken with Hingu, Arka, Punarnava, Dashamula, Snuhi, Chitraka all equal in quantity. 5 salts are powdered and mixed along with Sneha (oileanous matter). This is kept in a pot and subjected to heat.

Indication: Anaha (Distension of abdomen due to obstruction to passage of urine and stools)

#### Bhallatakadi Kshara<sup>19</sup>

Ingredients: Shuddha Bhallataka (*Semecarpus anacardium*), Shunti (*Zingiber officinale*), Maricha (*Piper nigrum*), Pippali (*Piper longum*), Haritaki (*Terminalia chebula*), Vibhitaki (*Terminalia bellirica*), Amalaki (*Emblica officinalis*), Saindhava Lavana (Rock salt), Kalanamak, Vida lavana - each 96g

Method: The ingredients are taken mixed well, kept in a sharava samputa (sealed earthen saucer) and subjected to heat by Gajaputa. After self cooling it is taken out and preserved.

Dose: 250mg-500mg, before food morning and evening  
Anupana: Ghrita (Ghee)

Indication: Hrudroga (heart diseases), Pandu (anaemia), Grahani-dosha (malabsorption syndrome), Gulma (abdominal lump), Udavarta, Shula roga.

#### Kukkuta Lavana<sup>20</sup>

Ingredients: Panchakola Kashaya, Kukkutamamsa (Hen's meat) - 768g, Samudra lavana (Sea salt)-768g, Narikela ksheera (milk of *Cocos nucifera*)-192ml, Narikela Taila (Oil of *Cocos nucifera*)- 96ml, Ghrita (Ghee)- 96ml, Hingu (*Ferula foetida*),

Trikatu, Jeeraka (*Cuminum cyminum*), Krishna Jeeraka- 12g each

Method: All the ingredients are filled in a pot and closed. It is heated in mandagni (mild heat) till it turns into bhasma (ash). The obtained Kukkuta lavana should be taken in the morning.

Indication: Gulma (abdominal lump)

#### Mahavruksha Lavana<sup>21</sup>

Ingredients: Snuhi (*Euphorbia nerifolia*), Arka (*Calotropis procera*), Bruhati (*Solanum indicum*), Saindhava Lavana (Rock salt)

Method: All the ingredients are filled in a pot and closed. It is heated with wood of Karanja. Then in the Kashya prepared with Paribhadra, Palashatwak, Pippalimula and Vidanga the lavana is added and heated. Then Mandura bhasma and Hingwadi churna are added and heated till it thickens.

Indication: Shula (pain)

#### Agnimukha Lavana<sup>22</sup>

Ingredients: Chitrakamula (*Plumbago zeylanica*), Haritaki (*Terminalia chebula*), Vibhitaki (*Terminalia bellirica*), Amalaki (*Emblica officinalis*), Dantimula (*Baliospermum montanum*), Nishothamula, Pushkaramula (*Inula racemosa*) each-1 part  
Saindhava lavana- 7 parts

Method: All ingredients are mixed and bhavana is given with Snuhi ksheera and fill in the stem of Snuhi. Cover with mud smeared cloth, dry and subject to heat. When the mud turns red in colour it is taken out from fire, mud is removed and it is ground along with the stem of Snuhi and preserved.

Indication: Agni deepaka, Yakrutvridhi (Hepatomegaly), Pleehevridhi (Spleenomegaly), Udararoga (Diseases of abdomen), Anaha (Distension of abdomen due to obstruction to passage of urine and stools), Gulma (abdominal lump), Arsha (piles), Parshvashula (intercostal neuralgia and pleurodynia)

Matra: 1 -3g

Anupana: Ushnodaka

#### Karanja Lavana<sup>23</sup>

Ingredients: Karanja Twak (*Pongamia pinnata*)-9600g, Kanjika-24Kg 576g, Lavana (Rock salt)- 3Kg 73g, Lashuna (*Allium sativum*)- 1536 g, Aja ksheera (Sheep's milk)- 3 litres 73ml, Dadhimastu (Whey)- 3 litres 73ml, Taila (Oil) and Ghrita (Ghee)- 384ml each.

Prakshepaka dravya: Chitraka (*Plumbago zeylanica*), Trikatu, Ajamoda (*Apium graveolens*), Punarnava (*Boerhavia diffusa*), Hingu (*Ferula foetida*), Sauvarchala, Chavya (*Piper chaba*), Yavakshara (Kshara of *Hordeum vulgare*), Vida, Mushkaka kshara (*Schrebera swietenoides*), Arushkara kshara (*Semecarpus anacardium*), Tintidika (*Rhus parviflora*), Brahmi vruksha, Brahmi (*Bacopa monnieri*), Jeerakadwaya, Aragwadha (*Cassia fistula*), Soma, Snuhi ksheera (Latex of *Euphorbia nerifolia*).

Method of preparation: Kashaya is prepared of Karnaja twak and Kanjika and reduced to 1/8<sup>th</sup>. Lavana, Lashuna, Aja ksheera, Dadhimastu, Taila and Ghrita are added and heated till samyak lakshana of lavana kalpa is achieved. To this the fine powders of Prakshepaka dravyas are added and mixed well.

Indication: Gulma (abdominal lump), Ashtila (Prostatic hypertrophy), Pleeha (disease of spleen), Shula (pain).

#### **Ketaki Dala Bhasma<sup>24</sup>**

Ingredients: Kevada Patra (leaves of *Pandanus odoratissimus*), Saindhava Lavana

Method: The ingredients are taken in equal quantity, placed in a sharava samputa and subjected to heat. After self- cooling it is removed and stored.

Indication: Pleeharoga (disease of spleen) with Guda (Jaggery)

#### **Sudhakandadi Kshara<sup>25</sup>**

Snuhi Kanda (*Euphorbia nerifolia*)  
Saindhava Lavana (Rock salt)

Method: The ingredients are taken in equal quantity, placed in a sharava samputa and subjected to heat. After self- cooling it is removed and stored.

Indication: Gulma (abdominal lump), Grahani (malabsorption syndrome), Arsha (piles), Shula (pain) with Ushnodaka (warm water)

With the advent of technology instead of conventional puta method muffle furnace is used to give heat. Research work done on Lavana has proved that not much variation is present between both the methods<sup>26</sup>. A study on two methods of Narikela lavana has suggested that implementation of either of the methods for obtaining Narikela Lavana results in least remarkable difference in majority of the physico- chemical properties. Elemental Calcium was found to be more in Nirjala Narikel Lavana compared to Sajala Narikel Lavana. Electrolytes like Calcium and Potassium are said to be responsible for the antacid property of this formulation. The pH of Sajala Narikel Lavana was found to be higher than that of Nirjala Narikel Lavana<sup>27</sup>.

#### **DISCUSSION**

Lavana kalpas are those preparations where Lavana is the prime ingredient. The literary review suggests that there are two different methods of preparation of Lavana Kalpana. One by subjecting to heat in closed method by Sharava samputa and the other by keeping in a pot and heating. The first method is the commonly followed method. The quantum of heat given is also different for different lavanas. For example for Shwasari lavana Gajaputa is mentioned, for Narikela lavana mahaputa is mentioned. For Kukkuta Lavana mild heat is said to be given and for Mahavruksha lavana heat with wood fuel with Karnaja has been mentioned. By subjecting to puta type of heat, may render the lavana lighter (laghu) and easy for digestion and assimilation. Though a few formulations are termed as Kshara like Sudhakandadi Kshara, the method of preparation is similar to Lavana kalpana- where the herbal ingredients are mixed with lavana and subjected to heat. The test for confirmation explained for Narikela lavana as Kajjala varna can also be implied for other lavana kalpas prepared by puta method. By subjecting to heat and later powdering will also reduce the particle size. Saindhava Lavana is said to be the best among all the other lavanas as it is tridosahara (pacifies all the doshas). Most of the lavana kalpas are mentioned to be employed in the treatment of gulma, udararogas, shula, etc. It is also beneficial in vatarogas.

#### **CONCLUSION**

Lavana kalpas are unique dosage form of Ayurveda Pharmaceutics. In this dosage form lavana is the prime ingredient and the dose of this formulation is less. Saindhava lavana is the salt used in most of the lavana preparations and this salt is said to be the best among all the other lavanas. In all lavana kalpas heat is employed and in most of the preparations closed type of heating pattern is adopted. By subjecting to puta will render the formulations lighter for digestion and also reduces the particle size. In practice at present two lavana kalpas are commonly used, though in the literature of Ayurveda Pharmaceutics many formulations are mentioned. This makes this preparation open for research.

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