

LAVANA VARGA IN AYURVEDA – A REVIEW

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ABSTRACT

Rasashastra can be described as Ayurvedic Pharmaceutics, which deals with the drugs of metal and mineral origin, their varieties, characteristics, processing techniques, Properties and their therapeutic uses. The basic concepts of Rasa Shastra are explained under 'Paribasha' (terminology). Lavana Varga is explained under Paribasha prakarana in Rasa Shastra.

Lavana is an essential element in the diet of not only human but of animals and even of many plants. Human needs salt to live. When man developed agriculture, salt was added to supplement the vegetable and cereal diet and the quest for salt become a primary motivation in history. Indian history recalls the prominent role of salt and salt making.

In medieval times for medicinal purposes, people of various regions were using lavanas according to their local name. So the name of one lavana was different in one region from other.

A number of salts are described in various ancient texts and out of which, some are not available in present day, but pancha lavana are mainly used in medicinal purposes. The names of five varieties of lavana included in Pancha lavana group, varies from text to text.

As we go through Ayurvedic texts we find different opinions regarding the contents of Pancha lavana group referring. The order differs from one to other, but they all recommended five varieties of lavanas that are included in Pancha lavana.

The present work aims at the review of Lavana Varga as explained in Ayurveda.

KEYWORDS: Ayurveda, Rasa Shastra, Lavana

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INTRODUCTION

Every subject has its own basic concepts. Without knowing these concepts we cannot understand the subject. It is very important to understand the technical terms of that particular science. The technical words which explain the meaning of unexpressed, unspoken and ambiguous words are known as Paribasha¹. As the light enlightens the things in the dark, similarly the terminology enables to know the meaning of coded and difficult words.

There are many technical terms commonly used in Rasashastra. Lavana panchaka is explained first among them. The group of five salts viz. Saindhava (Rock Salt), Samudra (Common Salt), Bida (a type of Black Salt), Sauvarchala (Potassium Nitrate) and Romaka (Earthen Salt), together known as Lavana panchaka.

Among all Saindhava lavana is the best one². In general lavana means Saindhava lavana only. Saindhava lavana is one of the ingredient in many number of Ayurvedic dosage forms which are used internally and externally. In Rasa Ratna Samuchaya³ there are six kinds of salts mentioned by adding Chullika Lavana to the above five. Saindhava, Sauvarchala and Vida are considered as Lavanatraya according to Rasa Tharangini⁴.

We get the references about Panchavidha Lavana in 24 texts of Ayurveda. Twelve texts have mentioned Saindhava, Sauvarchala, Vida, Samudra and Audbhida as Panchalavanas and the remaining texts have mentioned same four Lavanas but Audbhida is replaced by Romaka.

LAVANA NIRUKTHI

According to Shabdakalpadruma, Lavana nirukthi is “Lunati iti lavanam”, that which is having chedana property is known as lavana.

SALT – MODERN REVIEW

Lavana, in general is called as Salt. It is a mineral that is composed primarily of sodium chloride. Salt is one of the oldest, most ubiquitous food seasonings and salting is an important method of food preservation. The taste of salt (saltiness) is one of the basic human tastes.

According to modern, Salt is a compound which is essentially made up of one acid radical and basic radical, e.g. - Common Salt and Blue vitriol. Salt is the end product of the chemical reaction between acid and alkali.



The water molecule makes the salts hydrous. A salt may even be composed of more than one basic radical along with other acid radical. E.g.: Alum (actually it is the double salt)

Salt is a vital substance for the survival of all living beings, particularly humans. It controls the body fluids and regulates the concentration of blood and blood volume. It is said as universal preservative. It acts as a good appetizer and digestive when used in a right quantity. It is widely used in food as well as medicine. It is an essential element in the diet.

Chloride and sodium ions are the two major components of salt. Sodium is one of the primary electrolytes in the body. Salt is involved in regulating the fluid balance of the body. However, too much salt increases the risk of health problems, including high blood pressure. Therefore limitations have been recommended for dietary sodium. Too much or too little salt in the diet can lead to muscle cramps, dizziness, or electrolyte disturbance, which can cause neurological problems, or death.

Vital Functions Of Salt In The Body

- Salt is most effective in stabilizing irregular heartbeats.
- Salt is vital to the extraction of excess acidity from the cells in the body, particularly the brain cells.
- Salt is vital for balancing the sugar levels in the blood; a needed element in diabetics. Salt is vital for absorption of food particles through the intestinal tract.
- Salt is a strong natural antihistamine. Salt is essential for the prevention of muscle cramps.
- Salt is vital to prevent excess saliva production.
- Salt is vital for sleep regulation. It is a natural hypnotic.
- Salt is vital for maintaining sexuality and libido.

- Salt is vital for preventing varicose veins and spider veins on the legs and thighs.
- Sea salt contains about 80 mineral elements that the body needs. Twenty-seven percent of the body's salt is in the bones.

CLASSIFICATION OF LAVANAS

Based on its Origin

- Prakrita – Eg: Saindhava lavana, Samudra lavana, Romaka lavana
- Kritrima – Eg: Vida lavana, Sauvarchala lavana

Based on its Colour

- Sita – Eg: Saindhava lavana
- Asita – Eg: Krishna lavana

Based On Numbers

- Ekalavana – Saindhava lavana
- Dvilavana – Saindhava, Sauvarchala lavana
- Trilavana – Saindhava, Sauvarchala, Vida lavana
- Chaturlavana - Saindhava, Sauvarchala, Vida, Samudra lavana
- Panchalavana - Saindhava, Sauvarchala, Vida, Samudra, Audbhida lavana
- Shadlavana - Saindhava, Sauvarchala, Vida, Samudra, Romaka, Chullika lavana
- Panchadasa Lavana – Charaka explains 15 lavanas in Vimanasthana

LAVANA AS EXPLAINED IN SAMHITAS

Charaka Samhita

Charaka says, “Lavanamannadravyaruchikaranaam”, lavana is that which is best in adding taste to the food materials. He explains Panchalavana viz, Sauvarchala, Saindhava, Vida, Audbhida and Samudra lavana. Eventhough saindhava is the most useful amongst all varieties of salt, sauvarchala is listed first because of its most agreeable taste. As such sauvarchala comes only after saindhava in order of priority.

He further adds they are snigdha (unctuous), ushna (hot) and tikshna (sharp) in nature and act as deepaniyatama (very good appetizer). They are used in alepana (anointment), sneha sveda vidhi (causing unctuousness and fomentation), niruha and anuvasana vasthi, for abhyanga (massage), in bhojana (food), sirovirechana (elimination of doshas from the head), sastrakarma (surgical measures), varti (suppositories), anjana (collyrium) and utsadana (unction). It is beneficial in correction of ajirna (indigestion), anaha (constipation), gulma (abdominal tumour), sula (colic pain) and udara (ascitis) ⁵.

Panchadasa Lavanas⁶

In Charaka Vimanasthana, There are fifteen lavanas explained under Lavana Skanda which are used in giving Vasthi for Vata vikaras. They are,

1. Saindhava
2. Sauvarchala
3. Kala
4. Vida
5. Pakya
6. Anupa
7. Kupya
8. Valuka
9. Maulaka
10. Samudra
11. Romaka
12. Audbhida
13. Oushara
14. Pateyaka
15. Pamsuja

Sushruta Samhita

The natural salts mentioned by Susruta are Saindhava, Samudra, Vida, Sauvarchala, Romaka, Audbhida, Gutika and Pamsuja lavana⁷.

Saindhava Lavana

Saindhava Lavana is regarded as best of Salts. There are three varieties viz, Red, White and Crystalline. Crystalline is preferred for medicinal uses. It promotes the appetite and assists digestion and assimilation. It is given in abdominal disorders.

Samudra Lavana

Samudra Lavana literally means which is produced from the sea. Internally in small doses it increases the secretion of the salivary and gastric glands, sharpens appetite and promotes digestion of vegetables.

Vida Lavana

Vida Lavana is an artificially prepared salt in dark red shining granules. It contains mainly of Sodium Chloride with traces of sodium sulphate, alumina, magnesia, ferric oxide, and sulphide of iron.

Romaka Lavana

Romaka Lavana is produced from Sambar Lake near Ajmer. It is a laxative and diuretic. It is the best and purest form of evaporated salts

Sauvarchala Lavana

Sauvarchala Lavana is a dark coloured salt made by dissolving Common salt in a solution of crude soda and evaporating it.

Audbhida Lavana

It is produced by itself. It contains principally sulfate of soda with chloride of sodium

Gutika Lavana

Gutika Lavana cannot be identified at present. It is a sort of a boiled salt.

Pamsuja Lavana

Pamsuja Lavana literally means the salt which is manufactured from Saline earth. It is demulcent, stimulant, stomachic, generative of digestive fire and it acts as laxative. The first five are called Pancha Lavana and are often used in combination with each other. Lavanases according to different Samhitas are shown in **Table 1**.

LAVANAS IN RASA SHASTRA

Lavana Yantra

Two Lavana yantras are explained in Rasa Ratna Samuchaya. The first one is similar to Valuka yantra. Here valuka is replaced by lavana⁸. In the second one, a copper vessel is smeared with processed mercury and dried. After drying, the vessel is filled with lavana. It is sealed with a sarava with the help of a paste made of mud and lavana. Then it is subjected to heat in Valuka yantra or Lavana yantra.

Lavanases are used in sodhana of Tamra etc, in Samskaras like Svedana, Mardana etc, in Rasa Linga nirmana Saindhava jala is used, in the preparation of Kupipakva Rasayana such as Rasapushpa and in Vanga Jarana Samudra Lavana is used.

According to Rasarnava, the Pancha Lavanases are Samudra, Saindhava, Sauvarchala, Chullika and Kacha. Here Acharya has given separate headings for Kacha and Sauvarchala Lavana, but according to Adhamalla has written that, Kacha is the sub type of Sauvarchala.

According to Rasa Ratnakara Ruddhivadi Khanda, Panchalavana includes, Samudra, Saindhava, Kacha, Chullika and Sauvarchala. Here Kacha can be included in Sauvarchala and Chullika can be included in Vida.

According to Rasendra Chudamani, Panchalavanases are Samudra, Saindhava, Kacha, Vida and Sauvarchala. Here Kacha can be included in Sauvarchala. Lavanases according to different Rasa Shastra text books are shown in **Table 2**.

Bhaishajya Kalpana devotes a separate chapter known as Lavana Kalpana, e.g. Arka Lavana, Narikela Lavana etc. It is used as an ingredient in Deepana pachana yogas such as Chitrakadi Vati,

Lavana Bhaskara Churna etc. and it is used as Anupana for Dasamula Kvatha, Erandasapthaka Kvatha etc. Some yogas containing lavanas are shown in **Table 3**.

DESCRIPTION OF LAVANAS

The descriptions of few lavanas which are commonly used are given below.

Saindhava Lavana

It is a mineral which is obtained from Punjab mines. There are two varieties of Saindhava Lavana, they are White and Red. According to Charaka it is considered best among all the salts for internal use.

- English Name – Chloride of Sodium
- Latin Name – Sodi chloridium

Physical Properties

- Appearance – Stony pieces
- Colour – Whitish red
- Consistency – Hard
- Solubility – dissolves in water

Chemical Properties

- Sodium Chloride (NaCl) – 97.6 % w/w
- Sodium Bicarbonate (NaHCO₃) – 0.07 % w/w
- Insoluble matter – 0.031 % w/w
- Also contains minor quantities of Magnesium Chloride, Calcium Chloride and Calcium Sulphate

Pharmaco-Therapeutic Properties

1. Paryaya – Sindhu Lavana, Sindhutha, Sindhudesahaja, Shiva, Sita Shiva
2. Guna - Laghu, Snigdha, Tikshna
3. Karma – Agnideepana, Pachana, Ruchya, Netriya, Hridya, Vrishya
4. Veerya- Sheeta
5. Doshakarma – Tridoshashamaka
6. Amayika Prayoga - Sothahara, Vibandagna, Vranadoshahara

According to Charaka Suthrasthana 27th Chapter it is having tridoshashara, deepana, rochana (improves taste), hrudya (good to heart), chakshusya (good for eyes), vrishya (aphrodisiac), avidahi. It cures netra rogas (eye diseases), vranas and vibandha.

Sauvarchala Lavana

- English Name – Sochal Salt
- Latin Name – Unaqua Sodium Chloride

Physical Properties

- Appearance – Big masses
- Colour – Blackish brown
- Consistency – Hard
- Solubility – dissolves in water and produces H₂S smell

Preparation Of Sauvarchala Lavana⁹

1. Suddha Sarjikakshara – 4 Palas (192 gm)
2. Jala – 8 Palas (384 ml)
3. Saindhava Lavana – Q.S

Sudhha Sarjikakshara is taken and water is mixed to it in the above mentioned quantity. Then Saindhava Lavana is added in sufficient quantity till it melts. It is heated in intense fire till the water content evaporates. Then it is heated again for some time and Sauvarchala Lavana is collected.

Chemical Properties

- Sodium Chloride (NaCl) – 97.8 % w/w
- Total Sulphide (Na₂S) – 0.918 % w/w
- Iron (Fe) – 0.030 % w/w
- Insoluble matter – 0.07 % w/w

Pharmaco-Therapeutic Properties

1. Paryaya – Ruchaka, Ruchyaka, Hridyagandhaka, Krishnalavana
2. Guna – Laghu, Vishada, Snigdha
3. Veerya – Ushna
4. Karma – Deepana, Pachana, Rochana, Vatanulomaka
5. Doshakarma – Vatashamaka
6. Amayika Prayoga – Gulma, Sula, Vibanda, Anaha, Krimi, Arochaka

It has Deepana, Pachana and Rochana Properties and it posses good smell. It is indicated in Gulma, Shula and Vibanda.

Vida Lavana

- English Name – Ammonium Salt

According to Rasendra Chudamani 11th Chpter and Ayurveda Prakasha 20th Chapter, that which is produced by burning karira and peelu woods and which has kshara taste is called Vida Lavana. The author opines that it is also produced at the place of brick firing.

Physical Properties

- Appearance – Small pieces
- Colour – Greyish white
- Consistency – Hard
- Solubility – Some quantity of insoluble matter is also found

Chemical Properties

- Sodium Chloride (NaCl) – 93.7 % w/w
- Total Sulphide (Na₂S) – 0.121
- Iron (Fe) – 0.0089 % w/w

Pharmaco-Therapeutic Properties

1. Paryaya – Kritrimaka, Supakya, Dravida, Vidgandha
2. Guna – Laghu, Ushna, Tikshna
3. Karma – Hridya, Vatanulomaka
4. Veerya – Ushna
5. Doshakarma – Kaphavatashamaka
6. Amayika Prayoga – Ajirna, Anaha, Sula, Vishtamba, Vibanda

According to Sushruta Suthra 46 and Charaka Suthra 27; It is having Laghu, teekshna, Ruksha & vyavayi gunas; ksara & saline in taste; ushna veerya & deepana, ruchya, kaphavata shamana actions. Cures shula, hridroga aruchi & anala. Acc to rasa acharyas it acts as rasendra jarana, lohadravana.

Preparation Of Vida Lavana¹⁰

1. Romaka Lavana – 80 Tola (960 gm)
2. Amalaki Churna – 10 Tola (120 gm)

Romaka Lavana and Amalaki Churna are taken in an earthen pot and subjected to prakaragni for two yamas i.e. 6 hours. After svangashita, Vida Lavana is collected from the pot.

Samudra Lavana

- English Name – Sea Salt
- Latin Name – Sodi muris

It is prepared from sea water by evaporating it through sunrays.

Physical Properties

- Appearance – Cubical crystals
- Colour – Whitish grey
- Consistency – Hard
- Solubility – Dissolves in water

Chemical Properties

- Sodium Chloride (NaCl) – 91.3 % w/w
- Total Sulphide (Na₂S) – 0.121 % w/w

- Iron (Fe) – 0.0089 % w/w
- Also contains Calcium Sulphate, Magnesium Sulphate, Magnesium Chloride etc. in little quantities

Romaka Lavana

- English Name – Sambhar Salt

In Rajasthan there is a Sambhar Lake in Jaipur district, its water is saltish in taste, for preparing Sambhar Lavana this water is taken in a small quadrangular spaces and evaporated under sunrays.

Physical Properties

- Appearance – Circular crystals
- Colour – Whitish grey
- Consistency – Hard
- Solubility – Dissolves in water

Chemical Properties

- Sodium Chloride (NaCl) – 97.1 % w/w
- Total Sulphide (Na₂S) – 0.060 % w/w
- Sodium Bicarbonate (NaHCO₃) – 0.049 % w/w

Pharmaco-Therapeutic Properties

1. Paryaya – Romalavana, Romaka, Raumaka, Shakambariya
2. Guna – Laghu, Ushna, Tikshna, Sukshma, Visada
3. Karma – Bedana, Deepana, Mutrala
4. Veerya – Ushna
5. Doshakarma – Kaphavatagna
6. Amayika Prayoga – Arsas, Ajirna, Anaha

Audbhida Lavana (Reha Salt)

In saline earth the soil is found mixed with alkaline or saltish substance which is called Reha in Hindi. It is mixed in water when decanted, filtered and dried either in sunrays or on fire, the material obtained is known as Audbhida lavana.

Physical Properties

- Appearance - Crystal in appearance
- Colour - Greyish white
- Consistency - Hard in
- Solubility - Dissolves in water

Chemical Properties

- Sodium Chloride (NaCl) - 94.10% w/w.
- Total Sulphides - 0.042% w/w.
- Sodium Bicarbonate (NaHCO₃) - 0.049% w/w.

Pharmaco-Therapeutic Properties

According to Sushruta Audbhida Lavana is slightly Tikta, Katu and Kshara in rasa. According to Charaka it has Tikta, Katu and Kshara rasa but Teekshna Guna and Utkledi karma.

DISCUSSION

Sushruta Acharya gives separate headings for Romaka and Audbhida Lavana. Here Acharya has stated that Romaka is superior to Audbhida. But the later Acharyas opine that Romaka and Audbhida are not separate, Romaka is synonym to Audbhida. The qualities of Romaka and Audbhida described in different texts are almost similar. After going through these references it can be concluded that Audbhida can be replaced by Romaka.

According to Rasa Hridaya Tantra, Acharya has stated that there are six lavanas. In these six lavanas Acharya has given separate heading for Vida Lavana and Chullika Lavana. According to Adhamalla teeka they are having the same qualities and both are prepared artificially. So they both are the same.

CONCLUSION

Five varieties of salts are very commonly used in the preparation of many numbers of Ayurvedic dosage forms and as a routine dietary regimen. Chullika Lavana mentioned by Sushruta and later Acharyas cannot be identified at present. The name chullika is said to be derived from the circumstances of the salt assuming a hard, granular or nodular shape from boiling, so that it is a sort of boiled salt. Sushruta describes it as stomachic, digestive and laxative.

In Lavana Vargikarana, Prachina Acharyas have given separate headings but Naveena Acharyas considered them either as a synonym or as a sub type. That's why standardization is needed for market samples which are available in the name of Pancha Lavanās.

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Table 1: Lavanās According To Samhitas

Name	C.S	S.S	A.S	A.H	Sh. S	B.P
Saindhava	+	+	+	+	+	+
Sauvarchala	+	+	+	+	+	+
Vida	+	+	+	+	+	+
Samudra	+	+	+	+	+	+
Audbhida	+	+	+	+	-	+
Krishna	-	-	+	+	-	-
Romaka	-	+	+	+	+	+
Gutika	-	+	-	-	-	-
Pamsuja	-	-	-	+	-	-

Table 2: Lavanash According To Different Rasa Shastra Texts

Name	R.R.S	R.T	R.J.N	R.Ch	R.M	R.H.T	R.R	R.S.S
Saindhava	+	+	+	+	+	+	+	+
Sauvarchala	+	+	+	+	+	+	+	+
Vida	+	+	+	+	+	+	-	+
Samudra	+	+	+	+	+	+	+	+
Romaka	+	+	+	+	+	+	-	+
Chullika	+	-	+	+	+	+	+	+
Kacha	-	-	-	+	-	+	+	-
Gada	-	-	-	+	-	-	-	-

Table 3: Some Yogas containing Lavana

Rasayogas	Agnitundi Vati, Brihatagnikumara Rasa, Kshudhasagara Rasa, Vadavanala Rasa etc
Churna	Lavana Bhaskara Churna, Lavanottamadi Churna, Avipattikara Churna etc
Taila	Brihat Saindhavadi Taila, Saindhavadhya Taila etc
Varti	Saindhavadi Varti etc
Vati/Gutika	Chitrakadi Vati, Sauvarchaladi Gutika etc
Anjana	Lavanadyanjana, Saindhavanjana etc
Lepa	Saindhavadi Lepa etc


Figure 1: Saindhava Lavana

Figure 4: Samudra Lavana



Figure 2: Sauvarchala Lavana



Figure 5: Romaka Lavana



Figure 3: Vida Lavana



Figure 6: Audbhida Lavana