

Lavana (salt): An Ayurvedic outlook on Saindhava (Rock salt)

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ABSTRACT

Lavana (salt) is widely described in Ayurvedic classics. There are mainly five varieties of *Lavanas* used frequently in Ayurveda amongst them *Saindhava Lavana* is the best. Chemically, *Saindhava Lavana* is considered as Sodium chloride/Rock salt/Bay salt. *Sauvarchala Lavana* is Black salt/Sorchal salt/*Unaqua Sodium Chloride*, *Samudra* is Salt/Sodii muras. Primeval clairvoyants knew wide range of properties of *Lavana*. They used it for dietary and therapeutic purposes. Mostly, *Saindhava Lavana* has been appraised because of its undisputed acceptance amongst all classical texts.

Keywords: *Lavan*; Rock salt *Saindhava*.

INTRODUCTION

Lavana salt is widely described in Ayurvedic classics. Different varieties are used in different setting like household uses for seasoning of food stuffs, pickles, preserving food items, pharmaceutical uses like purification processes, especially in *Parada Ashtasamskaras*¹ (eight processing of Mercury) various therapeutic formulations, as a separate *Kalpana* (specific procedure of drug production) i.e. *Lavana Kalpana*² etc. *Lavana* has been described in each and every classic of Ayurveda; such is its importance. Amongst the varieties of *Lavana*, *Saindhava Lavana* is the best³. There are mainly five varieties of *Lavanas*⁴ used frequently in Ayurveda viz. *Saindhava*, *Sauvarchala*, *Vida*, *Samudra*, and *Audbhida Lavana*.

Chemically, *Saindhava Lavana* is considered as Sodium chloride/Rock salt/Bay salt. *Sauvarchala Lavana* is Black salt/Sorchal salt/*Unaqua Sodium Chloride*, *Samudra* is Salt/Sodii muras.⁵ There are six *Rasas* in *Ayurveda*⁶ out of which the third *Rasa* is *Lavana Rasa*. The present paper explores the concept of *Lavana* and especially *Saindhava Lavana* through Ayurvedic texts and recent data.

MATERIALS AND METHODS

Classical texts of Ayurveda like *Bruhatrayi* and *Laghu Trayi* and classical books of *Rasashastra* like *Rasaratnasamucchaya*⁷, *Rasatarangini*⁸, *Sharangadhara Samhita*, *Bhavaprakasha*, *Rasayogasagara*⁹, *Bhaishajya Ratnavali*.

Classical Conceive

Classical review helps us to understand the wide importance of *Lavanas* in *Ayurveda*, its expanded usage in different ways in different formulations.

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*Charaka Samhita*¹⁰

Acharya Charaka described *Lavanas* in different contexts in various formulations. He especially declared that the *Saindhava* is the best amongst all *Lavanas*. (Table 1)

*Sushruta Samhita*¹¹

Sushruta described the detailed qualities of each *Lavana* for the first time. Throughout the entire *Sushruta Samhita*, *Sushruta* has used the *Saindhava Lavana* specifically for not less than 68 times both in internal and external dosage forms. Next in line is the use of *Sauvarchala* approximately 27 times, and then in decreasing order comes *Vida Lavana* at 11 places. (Table 2)

*Ashtanga Hridayam*¹²

In addition to description of qualities of all six *Lavanas*, *Vagbhata* has described the i.e. general properties of *Lavanas*. Other uses are similar to and in collaborative view of both *Charaka & Sushruta*. (Table 3)

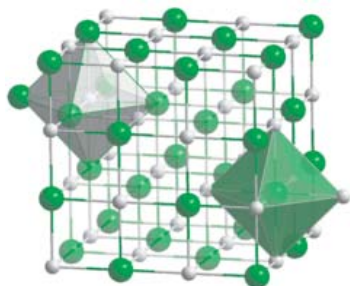
Rasa Vagbhata

In his well-known text *Rasa Vagbhata* has used *Saindhava* in many therapeutic formulations, but he has not given the general and specific properties of *Lavanas* anywhere in the text. (Table 4)

The specialty of *Bhavaprakasha*¹³ is that the chemical composition of all *Lavanas* is given with their synonyms. (Table 6)

*Yoga Ratnakara*¹⁴ has described a variety of formulations of *Lavanas*. (Table 7)

Rasa yoga Sagara has compiled a specific preparation of *Sauvarchala* show in Table 9.



Very detailed and specific description of *Lavana* is seen for the first time in *Rasatarangini*. (Table 10) The author also explains the artificial preparation of many *Lavanas*.

*Modern contrive**Common salt*

Sodium chloride, also known as salt, common salt, table salt, or halite, is an ionic compound with the formula NaCl. Sodium chloride is the salt most responsible for the salinity of the ocean and of the extracellular fluid in many multicellular organisms. As the major ingredient in edible salt, it is commonly used as a condiment and food preservative. Sodium chloride forms crystals with face-centered cubic symmetry. In these, the larger chloride ions, shown to the right as green spheres, are arranged in a cubic close-packing, while the smaller sodium ions, shown to the right as silver spheres, fill all the cubic gaps between them. Each ion is surrounded by six ions of the other kind; the surrounding ions are located at the vertices of a regular octahedron.

As well as the familiar uses of salt in cooking, salt is used in many applications, from manufacturing pulp and paper, to setting dyes in textiles and fabric, to producing soaps, detergents, and other bath products. It is the major source of industrial chlorine and sodium hydroxide, and used in almost every industry.

Sodium chloride is sometimes used as a cheap and safe desiccant because it appears to have hygroscopic properties, making salting an effective method of food preservation historically as it draws water out of bacteria through osmotic pressure, preventing them from reproducing and causing food to spoil. Even though more effective desiccants are available, few are safe for humans to ingest¹⁵.

Rock Salt

This is the common name for the mineral "halite". Its chemical formula is NaCl. Actually, rock salt is not (potassium swfate)

Table 1: Charaka Samhita

Sr. No.	Reference	Name of Lavana	Context/formulation
1	Cha. Su.1/88	Sauvarchala Saindhava Vida	First reference of Lavanas- List of Panchalavanas
2	Cha.Su.25/38	Audbhida Samudra Saindhava	Agrya Sangraha-Lavananam Shreshtham
3	Cha. Vi.1/15-18	Lavana	Excess intake is restricted, with detailed description of consequences of excess intake.
4	Cha.Vi.8/141	Lavanas	Lavana Skandha
5	Cha. Chi.18/167	Sauvarchala	Sauvarchaladi Churna-Vatakaphaja Kasa
6	Cha. Chi.24/177-179	Sauvarchala	Ashtangalavana - Kaphaja Madatyaya
7	Cha. Chi.26/242	Saindhava	Saindhawadi Varti-Sleshmaja Netraroga
8	Cha. Si. 4/13-16	Saindhava	Saindhavadya Anuvasana Taila Kapharoganuta

Table 2: Sushruta Samhita

Sr.No.	Reference	Name of Lavana	Context/formulation
1	Su.Su.45/314	Saindhava	Only Shita Virya Lavana
2	Su.Su.45/315	Samudra	Natushnam
3	Su.Su.45/316	Vida	Ushnam
4	Su.Su.45/317	Sauvarchala	Ushnam
5	Su.Su.45/318	Romaka	Properties-Ushnam
6	Su.Su.45/319	Audbhida	Properties-Ushnam

Table 3: Ashtanga Hridayam

Sr.No.	Reference	Name of Lavana	Context/formulation
1	A.H.Su.6/143	Lavana- In general	Properties in General
2	A.H.Su.6/144	Saindhava	Properties
3	A.H.Su.6/145	Sauvarchala	Properties
4	A.H.Su.6/146	Vida	Properties
5	A.H.Su.6/147	Samudra	Properties
6	A.H.Su.6/148	Audbhida	Properties
7	A.H.Su.6/149	Romaka	Properties

Table 4: Rasa Ratna Samucchaya (R.R.S.)

Sr.No.	Reference	Name of Lavana	Context/formulation
1	R.R.S. 24/7	Lavana	Lavanardraka Rasa-Karnashoolahara Yoga
2	R.R.S. 24/39	Saindhava	Galakilake Saindhava prayoga
3	R.R.S. 25/23	Saindhava	Lingakapharopane
4	R.R.S. 25/90	Saindhava	Garbhajanane

Table 5: Sharangadhara Samhita (Sha.S.)¹⁷

Sr. No.	Reference	Name of Lavana	Context/formulation
1	Sha.S.M.K.6/21-23	Lavanapanchaka	Srushtavinmutradau
2	Sha.S.M.K.6/97-104	Lavanatritayadichurna	Yakritaplihadau
3	Sha.S.M.K.6/138-144	Lavana Bhaskara Churna	Aruchi Gulmadau
4	Sha.S.U.K.3/11.5	Madhu+Saindhava	Vamaka

Table 6: Bhavaprakasha (B.P.)

Sr.No.	Reference	Name of Lavana	Context/formulation
1	B.P. Haritkyadivarga 241	Saindhava/ Sodium chloride/ Rock salt/ Bay salt	Properties
2	B.P. Haritkyadivarga 242-243	Shakambhariya/Romaka/ Sambhara/	Properties
3	B.P. Haritkyadivarga 244-245	Samudra/Salt/ Sodii muras	It has KCl, MgCl ₂ , CaSO ₄ , MgSO ₄
4	B.P. Haritkyadivarga 246-248	Vida Lavana	It has sodium sulphate in traces
5	B.P. Haritkyadivarga 249	Sauvarchala Lavana/Black salt/ Sochal salt/Unaqua Sodium Chloride	Properties

Table 7: Yoga Ratnakara (Y.R.)

Sr. No.	Reference	Name of Lavana	Context/formulation
1	Y.R. Ajirna Chi.	Bhaskara Lavana Churna- Saindhava+Vida	Ajirna Chikitsa
2	Y.R. Gulma Chi.	Bhaskara Lavana Churna- Sauvarchala+Samudra+Saindhava+Vida	Gulma Chikitsa
3	Y.R. UdaraChi.	Bruhat Samudradya Churna- Samudra+Sauvarchala+Saindhava	Udara Chikitsa
4	Y.R. Udara Chi.	Samudradya Churna- Samudra+Saindhava+Rupaka+Romaka+Vida	Udara Chikitsa
5	Y.R. Ajirna Chi.	Samudradya Churna- Samudra+ Sauvarchala	Ajirna Chikitsa
6	Y.R. Apasmara Chi.	Saindhavadya Grita-Saindhava	Apasmara Chikitsa.
7	Y.R. Vatavyadhi Chi.	Saindhavadya Taila-Saindhava	Vatavyadhi Chikitsa
8	Y.R. Udara Chi.	Lavanaditakrama	Udara Chikitsa
9	Y.R. Kuranda Chi.	Saindhavadi Lepa-Saindhava	Kuranda Chikitsa

Table 8: Bhaishajya Ratnavali (Bhay.Ratna)

Sr.No.	Name of Lavana	Context/formulation
1	Bhaskara Lavana Churna	Agnimandhadhikara
2	Bruhat Saindhavadya taila-Saindhava	Amvatadhikara
3	Saindhavadya Taila	Amvatadhikara
4	Samudradya Churna	Udaradhikara/7-8
5	Saindhavadya churna	Agnimandyadhikara/23
6	Saindhavadya churna - Samudra +Saindhava +Ruchaka +Romaka+Vida	Shooladhikara/16-17
7	Arka Lavana	Plihayakrutadyadhikara

Table 9: Rasa Yoga Sagara (R.Y.S.)

Sr.No.	Reference	Name of Lavana	Context/formulation
1	Suvarchaladya Loham	Sauvarchala/Sajjikshara	Shothadhikara

Table 10: Rasa Tarangini (R.T.)

Sr. No.	Reference	Name of Lavana	Context/formulation
1	R.T. 2/3	<i>Panchalavanas</i>	Names listed
2	R.T. 2/4	<i>Lavanatrayam</i>	Names listed
3	R.T. 2/5	<i>Saindhwasya Mukyatwama</i>	Qualities listed
4	R.T. 14/117-122	<i>Saindhavas Namani-Gunas-Utpattishtanas-Amayika Prayoga</i>	Names-qualities-origin-therapeutic usage is listed
5	R.T. 14/123-130	<i>Narikela Lavana-Saindhava</i>	Pharmaceutical procedure, qualities, therapeutic usage are listed
6	R.T. 14/131-136	<i>Arka Lavana-Saindhava</i>	Pharmaceutical procedure, qualities, therapeutic usage are listed
7	R.T. 14/137-139	<i>Samudras Namani-Gunas-Utpattishtanas-Amayika Prayoga</i>	Names-qualities-origin-therapeutic usage is listed
8	R.T. 14/140-152	<i>Vida lavanasya namani- gunas- 2 nirmana prakaras</i>	Names-qualities-Pharmaceutical procedure
9	R.T. 14/153-159	<i>Sauvarchalasya namani-gunas-nirmana prakara</i>	Names-qualities-Pharmaceutical procedure
10	R.T. 14/160-164	<i>Romaka Lavananasya namani- utpattisthana-gunas</i>	Names-qualities-Pharmaceutical procedure

Table 11: Chakradatta (Ratna Prabha Tika)¹⁷

Sr. No.	Name of Lavana	Context/formulation
1	<i>Sindhusara-Saindhava</i>	<i>Arshyachikitsa</i>
2	<i>Lavanotamadhya churna-Saindhava</i>	<i>Arshyachikitsa</i>
3	<i>Hingawashtaka churna-Saindhava</i>	<i>Agnimandya chikitsa</i>
4	<i>Narikela Lavana</i>	<i>Parinama Shoola chikitsa</i>
5	<i>Samudradya churna - Samudra-Suvarchala - Saindhava</i>	<i>Udara chikitsa</i>
6	<i>Brihat Saindhavadha Taila</i>	<i>Vridhi-Vraghna-Chikitsa</i>
7	<i>Pitaka Churna-Saindhava</i>	<i>Mukharoga chikitsa</i>
8	<i>Vaitarana Basti - Aamavatahara-Sindhuja</i>	<i>Niruhadhikara</i>

Table 12: Modern chemistry of Rock salt and common salt

Sr. No.	Chemistry	Rock Salt (%)	Common Salt (%)
1	Na	39.00	39.34
2	K	0.12	-
3	Mg	-	0.03
4	Ca	-	0.08
5	Cl	60.27	60.66
6	SO ₄	-	0.27
7	Total	99.77	100.00

K₂SO₄; it is NaCl. It can have impurities of gypsum (CaSO₄) and sylvite (KCl) but it is very rare to find potassium sulfate as a mineral, although, occasionally, polyhalite (K₂Ca₂Mg(SO₄)₄·2H₂O) is found associated with rock salt deposits.

The origin of rock salt comes from the bed sea that evaporated million years ago. It left behind crystallized deposits of this pure,

therapeutic salt form which contains all the elements found in our human body. Rock salt is possibly the purest form of salt, which is free from environmental pollutants, chemical components and does not require a refining process. It contains pure minerals such as Calcium, Iron, Zinc, Potassium, Magnesium, Copper and all the other 84 minerals. Its benefits are best experienced when used in its

natural state¹⁶. Rock salt is used externally and internally and is easily absorbed as its composition of minerals is similar to what we contain in our bodies. Some of the benefits of using rock salt are,

a) Skin benefits

It helps in exfoliating dead skin cells, cleansing skin pores and protecting the natural skin layer to produce healthy and energized skin type. It also helps in strengthening skin tissue to rejuvenate the skin to make it look younger and firm.

b) Antioxidant

It helps in getting rid of toxic minerals and refined salt deposits by stimulating blood circulation and mineral balance.

c) As a health monitor

Use of rock salt helps in stabilizing blood pressure by maintaining a balance of high and low blood pressures. It also helps in controlling weight by equalizing minerals which inhibit cravings and eliminate fat dead cells.

d) As a Cure

Rock salt is used as a home remedy to cure many disorders and ailments. It is used to treat many kinds of skin disorders and other ailments such as rheumatic pains and herpes. It can also be consumed along with lemon juice to eliminate stomach worms and control vomiting. The common cold and cough and other nasal and chest ailments can be treated with recipes that involve rock salt as the main ingredient. It is even used to reduce pain, inflammation and irritation from insect bites¹⁷¹⁷ Uses for rock salt/Women's Magazine. mht.

For proper functioning of the body at any point of time, in addition to water the body also requires almost half a kilogram of salt. It is essential for nourishment of minerals, water absorption, enhancing communication between cells and overall functioning of the

body. Apart from being used externally for the skin and internally for the body, rock salt is now also used to enhance the environment of indoor spaces. It helps in maintaining a balance of the electro-magnetic radiation and helps in nurturing and revitalizing the mind. Therefore, rock salt is considered as a complete body-mind package; it contributes to the body internally, to the skin externally and to the health of the mind.

DISCUSSION

After scanning the classical references, it becomes evident that *Lavana* (Salt) has occupied a special position in socio-economic cult. Right from the *Vedic* era to modern times, it has been an integral part of the lifestyle of people. Widely used not only as a flavoring agent or additive, but also equally therapeutically potent, this particular commodity has however been told as *Nidana* for a large number of diseases. It has been attributed with properties like *Ushna*, *Snigdha*, *Deepana*, *Pitta Vardhaka* etc. in general.

Ancient seers knew *atleast* seven types of *Lavana*. They have even described their properties with specific therapeutic indications. The importance of *Lavana* is mainly due to its action on *Agni* (*Agni Deepana*) and *Vayu* (*Vatanulomaka*). As *Agni* and *Vayu* are supreme operational factors at the stage of digestion, their derangement can lead to a variety of gastro-intestinal disorders and cause ill health. Hence, the role of *Lavana* comes into play. Such is the implausible importance that a whole lot of *Kalpana* (formulation), i.e. *Lavana Kalpana*, is dedicated to this particular artifact. *Acharya Charaka* has gone to the extent of describing the adverse effects of excessive consumption of *Lavana* in general. When not properly used, it causes accumulation of *Doshas*, fatigue, lassitude, weakness, premature graying of hair, baldness and wrinkling. However, a striking similarity is seen in unanimous appreciation of *Saindhava Lavana*. By virtue of its properties, it can be effectively used in any *Doshika*

conditions. It doesn't even vitiate *Pitta*. Hence, it occupies a supreme position amongst all *Lavanas*.

Modern medicine has blamed salt as an etiological or aggravating factor for a large number of cardiac disorders (Hypertension, Angina etc.). Hypertension, a major silent killer, has emerged in the recent years with salt as a major etiological factor. This may be due to the commercially prepared artificial salts and vague lifestyle of people. However, classical *Saindhava* can be used effectively in such cases. This is due to the presence of other trace elements (Table 12) although the mode of action is still not properly known.

CONCLUSION

Ancient seers were familiar with the pharmacological properties of *Lavana*. They used it for dietary and therapeutic purposes. Mostly, *Saindhava Lavana* has been appraised here because of its undisputed acceptance amongst all classical texts. Hence, it is the need of the hour to switch over to *Saindhava* instead of commercially prepared salt with additives.

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