

Pharmaco-Therapeutic Profile of *Laxmivilas Rasa* - An Ayurvedic Herbo-Mineral Formulation

Bharat Rathi, Dhirajsingh Rajput, Rohit Gokarn, Darshana Mehakarkar



Abstract:-

Herbo-mineral formulations occupies significant seat in Ayurvedic pharmaceuticals. Nearly 70 % formulations include combination of one or more metallic/mineral *Bhasma* with several herbs which have supporting role in improving efficacy of *Bhasma*, reliving symptoms of disease and to avoid adverse effect of *Bhasma*. *Laxmivilas Rasa* is one of such herbo-mineral combination indicated in *Kustha* (diseases of skin), *Prameh* (urinary disorders), *Nadivrana* (sinus), *Arsha* (piles), *Bhagandara* (fistulka in-ano), *Shlipada* (filariasis), *Atisara* (diarrhea), *Amavata* (rheumatism), *Udararog* (diseases of abdomen), *Kasa* (cough), *Rajyakshma* (tuberculosis), *Sthoulya* (obesity), *Sula* (pain), *Shirorog* (diseases of head) and *Strirog* (gynecological disorders). This formulation mainly acts as *Kapha-Vataghna* and widely used in treating *Dushta-Pratishyaya* (chronic rhinitis). Detail information, properties and mode of action of *Laxmivilas Rasa* is not published yet. Hence in present work an attempt has been made to compile available information and to discuss properties of *Laxmivilas Rasa* on the basis of modern research. It is clear from this study that *Laxmivilas Rasa* is useful in treating wide range of diseases especially upper respiratory tract, abdominal conditions and some major systemic disorders such as anemia, diabetes, tuberculosis, hepatitis and infertility. This is having unique properties *Ushna Virya* formulation; hence have limitations in *Pitta* vitiated conditions. Present work will be helpful to understand therapeutic value, broad spectrum activity and other useful properties for the management of *Kapha Vataj* disorders.

Key words:- Ayurveda, Herbo-mineral formulations, *Kapha-Vata* disorders, *Laxmivilas Rasa*.

Introduction:

Acharya Charak has divided the body into 6 parts i.e. two upper extremities, two lower extremities, head and neck and trunk (*Madhya Sharir* or *antharadhi*) [1] called *Shadang Shariram*. Body's all soft organs such as liver, spleen, lungs, kidneys, small and long intestine are located in the trunk. Number of channels (*strotasas*) such as *Pranavaha*, *Annavaha*, *Rasavaha*, *Raktavaha*, *Medovaha*, *Sukravaha*, *Mutravaha*, *Purishvaha strotas* have their derivation in the trunk[2]. Ayurvedic claims enumerated for certain diseases related to these soft organs and channels like asthma, cough, angina pectoris, tuberculosis, digestive impairment, malabsorption syndrom, diarrhea, calculus, skin diseases, obesity, gynecological disorders etc have also been described separately. These diseases are treated with number of formulations containing herbal drugs such as *Sunthi*, *Musta*,

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Corresponding Author:

Bharat Rathi, Professor,
Department of Rasashastra and
Bhaishajya Kalpana, MGACH &
RC, Salod (H), Wardha (MH)

Email: sgrbhinde@gmail.com

Co-author (s):

Dhirajsingh Rajput, Assistant
professor, Department of
Rasashastra and Bhaishajya
Kalpana, MGACH & RC, Salod
(H), Wardha (MH)

Rohit Gokarn, Assistant professor,
Department of Rasashastra and
Bhaishajya Kalpana, MGACH &
RC, Salod (H), Wardha (MH)
Darshana Mehakarkar, M.D.
Scholar, Department of Rasashastra
and Bhaishajya Kalpana, MGACH
& RC, Salod (H), Wardha (MH)

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Vasa, Gokshura etc. later the use of Rasa medicines containing mineral drugs also augmented in practice during medieval period. Laxmivilas Rasa is one such potent herbo-mineral formulation described in Rasa texts having broader therapeutic activity in above diseases.

Different classical texts have narrated some difference in ingredients and indications of Laxmivilas Rasa. These are compiled in Table no.1 and 2.

Material and Methods:

In present work literature related with Laxmivilas Rasa have been studied from various classical texts. Online available information of Laxmivilas Rasa was also compiled and studied. Research works conducted at various institutes were not available hence published data was compiled to interpret the classical information.

Observations and results:

In total 7 formulations with the name of Laxmivilas Rasa were recorded in various compendia of Ayurveda like Rasendra Sara Sangraha, Brihat Rasa Rajasundara, Rasa chandashu, Yoga ratnakara, Bhaishajya Ratnavali, Rasa ratna samuchhaya, Rasa

kamadhenu, Rasc hintamani and Rasendra Chintamani. As these formulations differ in few ingredients and thus changes their therapeutic efficacy, these should be considered as alternate formulations for selecting best suitable combination of Laxmivilas Rasa according to patients condition and symptoms of disease. Such formulations are depicted in table 2.

General Indications of Laxmivilas Rasa:

The analysis of data clearly indicates that, out of seven formulations six formulations have mercury and salphur combination. Though Laxmivilas Rasa mainly indicated in treatment of Shiroroga, Swasa, Kasa, Rajyakshma but the other formulations with the same name quoted in various texts have incorporated the diseases like Kustha, Prameh, Nadivrana, Arsha, Bhagandara, Shlipada, Atisara, Amavata, Udararog, Sthoulya, Shula, Strirog, Jwara, and Vataroga in the list of indications. Laxmivilas Rasa from Bhaishajya Ratnavali was included in Ayurvedic formulary of India [4]. (Table 3)

Table 1: Showing various references quoted in different Ayurvedic text [3]

S.N.	References	Indications
L ₁	B.R.	Kustha , Prameh , Nadivrana , Arsha , Bhagandara, Shlipada , Atisara, Amavata , Udararog, Kas , Rajyakshma, Sthoulya, sula, Shirorog, Strirog
L ₂	R.S.S.	Kasa, Swasa, Pandu, shool , Shotha , Prameha , Arsha
L ₃	Y.R.	Rajyakshma , Pandu, kamala, Vataroga, shotha, pratishyaya, Arsha, Shool, Kushtha, Agnimandya, Swasa, kasa
L ₄	R.Ch.	Vajikaran
L ₅	R.K.Dh.	Jwara, Vataroga, Arsha, Kshaya. Prameha, Kushtha
L ₆	Ra. Chi.	Khalitya, Netraroga , Sukraksaya ,
L ₇	R.R.	Vataj & Kaphaj Shirorog
* B.R.= Bhaishajya Ratnavali, R.Ch.= Rasachandashu, Ra.Chi.= Rasa Chintamani, Y.R.= Yogaratnakara, R.S.S.= Rasendra Sara Samgraha, R.K.Dh.= Rasakamadhenu, R.R.= Rasaratnakar		

Table no.2:- Showing various ingredients of <i>Laxmivilas Rasa</i> according to different Ayurvedic text								
Sr.no	Ingredients	L ₁	L ₂	L ₃	L ₄	L ₅	L ₆	L ₇
1.	<i>Suvarnabhasma</i>	-	-	+	+	-	-	-
2.	<i>Muktabhasma</i>	-	-	+	+	-	-	-
3.	<i>Abhrakbhasma</i>	+	+	-	+	-	+	+
4.	<i>Paradbhasma</i>	-	-	-	+	-	-	-
5.	<i>Lauhabhasma</i>	-	+	-	+	-	-	+
6.	<i>Pravalbhasma</i>	-	-	-	+	-	-	-
7.	<i>Kasturi</i>	-	-	-	+	-	-	-
8.	<i>Kesar</i>	-	-	-	+	-	-	-
9.	<i>Javitri</i>	+	-	-	+	-	+	-
10.	<i>Lavang</i>	-	+	-	+	-	-	-
11.	<i>Ela</i>	-	+	-	+	-	-	-
12.	<i>Dalchini</i>	-	+	-	+	-	-	-
13.	<i>Shuddha Parad</i>	+	+	-	-	+	+	-
14.	<i>Shuddha Gandak</i>	+	+	-	-	+	+	-
15.	<i>Tamrabhasma</i>	-	+	+	-	+	-	-
16.	<i>Pippali</i>	-	-	-	-	+	-	-
17.	<i>Kushtha</i>	-	-	-	-	+	-	-
18.	<i>Rajatbhasma</i>	-	-	+	-	-	-	-
19.	<i>Vangbhasma</i>	-	+	+	-	-	-	-
20.	<i>Trilauhabhasma</i>	-	-	+	-	-	-	-
21.	<i>Naga bhasma</i>	-	-	+	-	-	-	-
22.	<i>Shuddha Visha</i>	-	-	+	-	-	-	+
23.	<i>Rasa Sindura</i>	-	-	+	-	-	-	-

Most of the pharmacies like Dhoot papeshwar, Chaitanya Pharmacy, Ayurveda Rasashala Pune Baidyanath, Dabur, Arya Vaidyashala, Divya Pharmacy Haridwar are preparing the *Laxmivilas Rasa* according to formulation mentioned by *Bhaishajya Ratnavali*. The drugs having action on major systems like respiratory system, elementary system, excretory system are incorporated in this formulation. It is a herbo-mineral compound preparation. Its ingredients and their properties are listed below.

Indications of *Laxmivilas Rasa* according to *Bhaishajya Ratnavali*:

Various diseases related to the *Mutravaha Strotasa* (Urinary System), *Shukravaha Strotas* (Reproductive system), *Medoroga* (Obesity) etc. are included in the indications. As *Bhaishajya Ratnavali* is most famous and mostly referred Ayurvedic classical texts, hence the indications given for *Laxmivilas Rasa* are separately compiled from *Bhaishajya Ratnavali* which is enlisted in Table 4.

Research studies:

A patho-physiological and clinical study has been conducted entitled *Antrik jwar par Laxmivilas Rasa ka naidanik prayogatmak adhyayana*. [22] Another research work on clinical ground elaborates clinical efficacy of *Laxmivilas Rasa* on *Dushta Parishyaya*. [23] Similar work entitled a study of *Pratishyaya* and its management with *Laxmivilas Rasa* and *Vyaghri tail*, helps to establish utility of *Laxmivilas Rasa* in *Pratishyaya*. [24] A different research work has been found which compares *Abhraka Bhasma*, *Abhraka Satva* with special reference to *Laxmivilas Rasa*. [25] The results of this work is not available hence can't be discussed further.

Discussion:

Laxmivilas Rasa is a herbo-mineral combination and contains many micro-nutrients which plays major role to get relieve from complications of disease. It can be well explained after knowing therapeutic actions of individual ingredients of *Laxmivilas Rasa*. *Abhraka Bhasma* has shown highly encouraging result in various conditions like auto immune diseases including rheumatism, cervical dysplasia, jaundice, eczema and dermatitis, tuberculosis, asthma, pneumonia, pneumonitis, cardiac diseases etc. [26] Texts have highlighted the *Vrshya* property of *Abhraka Bhasma*. A scientific study reveals that *Abhraka Bhasma* can correct heat

induced male infertility and provides us with the possibility of treatment of human heat induced oligozoospermia and azoospermia. [27]

Total number of ingredients in *Laxmivilas Rasa* varies from 5 to 20. *Rasakamadhenu* has mentioned only five ingredients out of which 3 ingredients are *Parada*, *Gandhak* and *Tamra bhasma*. This classical text is basically dealing with *Lohavada* (conversion of lower metals into gold) and its value for therapeutic purpose is not proven yet. *Rasendrasara Sangraha* has utilized *Tamra bhasma* and *Shuddha Hartal* which is confusing combination as both has toxic properties. It is difficult to interpret utility of this combination and research is expected. *Rasachintamani* and *Yogaratanakara* have included *Suvarna Bhasma* and *Mukta Bhasma* which makes the final product much costly. *Suvarna* has broad spectrum therapeutic actions which may enhance pharmaco-therapeutic value of this formulation. Ingredients mentioned in *Bhaishajya Ratnavali* and *Rasendra Chintamani* are cheaper and within the patients reach. Hence various pharmacies have adopted the reference of *Bhaishajya Ratnavali* for manufacturing *Laxmivilas Rasa*.

Parada along with *Gandhaka* in the form of *Kajjali* and *Rasasindoor*, is used to boost immune system, to improve strength, in cardiac diseases, colicky abdominal pain, urinary tract related diseases, fistula in ano, inflammatory conditions, tuberculosis, chronic respiratory conditions, asthma, anemia, obesity, non healing wounds, and digestive problems. [28] *Karpoor* seems to stimulate nerve endings that relieve symptoms such as pain and itching when applied to the skin. *Karpoor* is also active against fungi that cause infections in the toenails [29] *Jatiphal* is useful in treating *Atisara*, *Svasa*, *Chardi*, *Kasa*, *Pinasa*, *Grahani*, *Mukharoga*, *Sukrameha*, [30] Antibacterial, antidiarrhoeal and abortifacient. The active principle in nutmeg is myristicin, a catecholamine-like phenylpropanoid.

Some research work proved beneficial effects of *Vidarikanda* such as in an animal model of ulcers in rats, large doses of the extract of *Argyrea nervosa var. speciosa* leaves (50, 100 and 200 mg/kg body weight) showed dose-dependent antiulcer activity and cured the ulcers. [31] Another study elaborated aphrodisiac activity of extract of

Table 3: Showing list of ingredient of Laxmivilas Rasa and their properties.

S.N.	Name of Ingredient	Quantity	Pharmacological Properties	Action on Dosha	Action	Indications	Reference	
1.	Krishnabhrak bhasma	4 parts	Kasaya, Madhura Sita virya	Tridosha	Ayuskara Dhatuwardhaka	Vrana , Kustha , Prameha , Pliha , Granthi , Visa , Krimi	⁵ RRS 2/2 p.39	
2.	Shuddha Gandhaka	2 parts	Katu, Kasaya, virya	Tikta, Ushna	Kapha Vata	Saraka. Pittajanan Rasayan	Krimi , Kandu , Visarpa , Kustha , Kshaya , Pliha	⁶ RRS 3/17-18 p. 61
3.	Shuddha Parada	2 parts	Sadrasa, snigdha	Tridosha	Rasayan Yogvahi	Sarvarogghara , Kustha	⁷ RPS 1/163	
4.	Chandra (Karpura) Cinnamomum camphora (Nees & Eberm)	1 part	Madhur, tikta Laghu	Kapha - Pitta	Vrushya, Chakshushya Lekhana	Daha, Trushna, Asyavairasya, Meda daurgandhya nashaka	⁸ BPN Karpuradi varga /3 p-173	
5.	Jatikosha (Javitri) Myristica fragrans(Houtt)	1 part	Katu, Ushna virya	Laghu, Kapha har	Rucya , varnakrita	Kasa , Vaman , Swasa , Trishna , Krimi , Vishavikar	⁹ BPN karpuradi varga /56 p- 218	
6.	Jatiphala Myristica fragrans(Houtt)	1 part	Tikta, Katu Laghu Tikshna, virya	Kapha - Ushna Vata	Rocaka Agnidipak Grahi Stambhan	Krimi,Kasa, Vaman , Swasa, Sosha, Peenas , Hrdrog	¹⁰ BPN karpuradi varga /54 p- 216	
7.	Vrddhadaraka bija Ipomoea petaloidia Chois	1 part	Kasaya, Katu , Tikta , Sarak Ushna virya	Kapha	Rasayan , Vrisya, balya Swara kar	Amavata , Shotha , Arsha , Prameha	¹¹ BPN Guduchyadi varga /2 p- 408	
8.	Dhattura bija Datura metel Linn	1 part	Kasaya, madhur , Tikta, Guru Ushna virya	Kapha	Mad , vama , Jatharagni vardhaka	Jwara, Kushtha , Kandu , Krimi , Vishavikar	¹² BPN Guduchyadi varga /85-87 p- 317	
9.	Bhanga bija Cannabis sativa Linn.	1 part	Tikta, Laghu, Tiksna Ushnavirya	Kapha	Grahi , Pacaka Wagvardhini Vednahr	Suryavarta , Apatantrak , Nidranasha ,Sagrahani , Atisar , Visuchika , Kasa , Amavata	¹³ BPN Haritakyadi varga /233 p- 141	
10.	Vidari mula Pueraria tuberosa DC.	1 part	Madhur, snigdha, Brihana, Guru, Sitavirya	Pitta - Vata	Stanya, Sukral Swarya , Mutral	Karshya ,	¹⁴ BPN Guduchyadi varga/180-182 p-387	

Table 4: Showing different indications of Laxmivilas Rasa mentioned in Bhaishajya Ratatnavali [21]

S. No	Disease condition	Dosha	Dushya	Strotasa
1.	Kustha	Tridosha	Rakta, Mamsa, Ambu	Rasavahava, Raktavaha, Mamsavahava
2.	Prameha	Tridosha	Meda, Rakta, Shukra, Ambu, Vasa, Rasavaha, Oja, Lasika, Majja, Mamsa	Udakavaha, Medovaha, Mutravaha
3.	Nadivrana	Vata	Mamsa	Purishvaha
4.	Arsha	Tridosha	Twak, Mamsa, Meda	Mamsavaha
5.	Bhagandara	Vata	Mamsa	Mamsavaha
6.	Shlipada	Kapha	Rasa ,rakta , Lasika	Rasavaha
7.	Atisara,	Kapha – Vat	Udak , Purish	Udakavaha
8.	Amavata	Vata	Sandhi	Rasavaha , Asthivaha
9.	Jivhastambha	Vata		Majjavaha
10.	Udararog	Kapha vata	Rasa	Udakavaha
12.	Mukha, Karna, Nasa, Akshi vikriti	Kapha Vata		Majjavaha
13.	Kasa	Vata		Pranavaha, Rasavaha
14.	Peenasa	Kapha		Pranavaha
15.	Rajyakshma	Tridosha	Rasa , rakta	Pranavaha
16.	Sthoulya	Kapha	Meda	Medovaha
17.	Shirorog	Vata		Pranavaha
18.	Sula,	Vata		Purishvaha
19.	Strirog	Tridosha	Rasa , rakta , Mansa	Artavvaha

Vidarikanda root.[32] *Datura* is ideal for the treatment of asthma. The leaves are burnt and the fumes are inhaled to take in the antispasmodic properties of *Datura*. Traditionally, *Datura* leaves were rolled and smoked to improve the symptoms of asthma.[33] The use of *Bhanga* for the management of chemotherapy-induced nausea, glaucoma, spasticity in multiple sclerosis, and neuropathic pain has been clinically demonstrated to some extent.[34] Results from experiments conducted in animals provide support for a therapeutic role of *Dhatura* in the management of pain.[35]

Shatavari is a plant used in traditional Indian medicine (Ayurveda). The root is used to make medicine. People use *Shatavari* for upset stomach (dyspepsia), constipation, stomach spasms and stomach ulcers. It is also used for fluid retention, pain,

anxiety, cancer, diarrhea, bronchitis, tuberculosis, dementia and diabetes.[36] The drug *Nagabala* is used to pacify provocation of *Vata* & *Pitta*, nerve tonic, brain tonic, demulcent, diuretic & cardiac tonic. It pacifies burning sensation & *Raktapitta*. It has foetus stabilizing properties, wound healing, blood coagulant and analgesic action. It is given in diarrhea, dysentery, in heart disease, cough & dyspnoea. It is one of excellent *Rasayana* & *Balya* medicine.[37] In cytotoxicity and antibacterial activity of *Atibala* (*Sida rhombifolia*) grown in Bangladesh: the ethyl acetate extract showed potent cytotoxicity. Extracts showed weak antibacterial activity against both Gram-positive and Gram-negative test organisms.[38] In Vitro evaluation of antioxidant activity of *Atibala* showed that all the extracts have effective free radical scavenging

activity, reducing activity, and superoxide scavenging activity. The results indicate *Atibala* is a potential source of natural antioxidants.[39] A hydroalcoholic extract of leaves of *Atibala* showed anti-inflammatory activity in carrageenan-induced model.[40]

Similar researches are also available regarding broad range of therapeutic utility of other ingredients of *Laxmivilas Rasa*. *Laxmivilas Rasa* is *Kapha-Vatahara* in action although its ingredients such as *Abhraka bhasma*, *Gandhaka*, *Parada*, *Shatavari* and *Atibala* have properties to cure nearly all diseases. The ingredients are mostly *Ushnavirya*, hence this formula have limitations in *Pitta* vitiated conditions. Thus it is mainly indicated in *Dushta-Pratishyaya*, *Shwasa* and *Kasa*. According to pharmacodynamic point of view, *Laxmivilas Rasa* helps to neutralize or destroy vitiated *Kapha* and reestablish the formation and function of *Prakruta Kapha*. It can be interpreted that *Laxmivilas Rasa* act as *Kledahara* and help to clear the unwanted things which are resulting in formation of *Kleda*, *Dushta-Kapha* and ultimately cures those diseases. Difference in the indications of *Laxmivilas Rasa* in different classical texts represent that the ancient seers utilized this formula for different purposes. Above mentioned research works on individual ingredients of *Laxmivilas Rasa* have some limitations as drug action changes with change in combination of other drugs. Here, it can be interpreted that, the combination of different drugs in *Laxmivilas Rasa* increases its safety and efficacy and also contribute to improve major as well as minor beneficial changes in human body. Advanced research is expected to verify this claim.

Conclusions:

It is clear from the literature that *Laxmivilas Rasa* has been used to treat wide range of diseases of upper respiratory tract, abdominal conditions and some major systemic disorders such as anemia, diabetes, tuberculosis, hepatitis and infertility. Thus it has broad spectrum activity for the management of *Kapha Vataj* disorders.

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