

PHARMACEUTICAL PREPARATION OF *LOKANATHA RASA*\*<sup>1</sup>Dr. Sangeeta Rao, <sup>2</sup>Dr. Vikram S. and <sup>3</sup>Dr. Ravindra Angadi<sup>1</sup>Professor, PhD Scholar, Department of *Rasashastra & Bhaisajya Kalpana*, Sri Sri College of Ayurvedic Science & Research, Bangalore-82, Karnataka.<sup>2</sup>Professor, HOD, Department of *Rasashastra & Bhaisajya Kalpana*, Sri Sri College of Ayurvedic Science & Research, Bangalore-82, Karnataka.<sup>3</sup>Professor, HOD, Department of PhD & PG studies in *Rasashastra & Bhaisajya Kalpana*, SDM College of Ayurveda, Udupi, Karnataka.**\*Corresponding Author: Dr. Sangeeta Rao**Professor, PhD Scholar, Department of *Rasashastra & Bhaisajya Kalpana*, Sri Sri College of Ayurvedic Science & Research, Bangalore-82, Karnataka.

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**ABSTRACT**

*Moorchana* is one of the important *Adharabhoota Siddhanta of Rasashastra*, wherein it increases the therapeutic efficacy of *Parada* and makes it safe for ingestion. In Ayurveda we come across many *Moorchita Parada yogas* which can be broadly classified into *Khalwiya, Parpati, Kupipakwa* and *Pottali kalpanas*. Among these yogas, *Lokanatha rasa* is one of the *Kupipakwa rasayana*. There are many references in various classical texts for this formulation mainly containing *Rasasindoora, Suddha Gandhaka, Suddha Kaparda, Suddha Shankha* etc which are *krumighna, rasayana, vyavayi*, and mainly indicated in *Atisara, Grahani, Kasa, Shwasa, Kshaya* etc. Hence an attempt was made to prepare this formulation according to the reference of *Rasaratna Sammuchaya* and know the practical challenges faced during its preparation.

**KEYWORDS:** *Rasasindoora, Suddha Gandhaka, Suddha Kaparda, Suddha Shankha* etc.**INTRODUCTION**

*Rasachikitsa* is known as *Daivee chikitsa* because of its *Rasayana* property and its ability to tackle chronic as well as acute condition of diseases.

Among them *Atisara* is the most commonly encountered disease in clinical practice, which can be correlated to diarrhea as the clinical features of watery stools, increased stool frequency, abdominal discomfort etc are similar in both diseases.

In the field of Ayurveda, we find references for a wide range of mineral based preparations that are indicated for

their *Krumighna* action. *Lokanatha rasa* is one such mineral preparation. There are many references in various classical texts for this formulation mainly containing *Rasasindoora, Suddha Gandhaka, Suddha Kaparda, Suddha Shankha* etc mainly indicated in *Atisara, Grahani, Kasa, Shwasa, Kshaya* etc.

**FORMULATION REVIEW****Reference:** *Rasaratna sammuchaya*<sup>[1]</sup>**Equipments:** *khalwayantra*, muffle furnace, *sharava, puta yantra*, Weighing machine, cora cloth, pyrometer, spoons.**INGREDIENTS****Table No 1: Showing Ingredients of *Lokanatha Rasa*.**

SL. NO	INGREDIENT	QUANTITY
1.	<i>Rasasindoora</i>	1 part- 48 g
2.	<i>Suddha Gandhaka</i>	4 parts- 192 g
3.	<i>Shuddha Kaparda</i>	Q. S- 34 in number

**PROCEDURE**

Preparation of *Lokanatha rasa* can be divided into 3 stages.

**1. Purva Karma**

Prepared *Rasasindoora* 48 g was taken in a clean and dry porcelain *khalwa yantra* and made into fine powder. To it the fine powder of *Suddha Gandhaka* 192 g was added

trituated. *Mardana* was continued for 1 *yama* till a smooth, fine powder was obtained. This *pisti* weighed almost 230 g. This was later filled in the *shodhita kapardas* through the ventral cleft until no further *pisti* could be filled in it. Later a smooth paste of *Suddha Tanka* and *Godugdha* was prepared and this was applied over slit of *kaparda* and sealed and kept for drying.

Total number of *Shodhita Kapardas*: 34

Total weight of *Poorita Kaparda*: 136 g

### PRADHANA KARMA: AGNI SAMSKARA

#### classical *puta* way of heating

Equipments : Two earthen *sharavas* of equal size, cowdungcakes, matchbox, pyrometer, *khalwayantra*, cora cloth, *multani mitti*, spoons.

Ingredients: *Poorita Kapardas* total number-17

Weight of the 17 *Poorita Kapardas* : 68 g

#### Procedure

Two concave equal sized earthen plates (*sharavas*) were taken with diameter of 22 cm. *Poorita kapardas* were placed in the *sharava* with the cleft side facing upwards. Another *sharava* was placed over it to make *samputa*. Gap between two *sharavas* was properly sealed with 3 layers of *multani mitti* smeared cora cloth which measured 25 cm in length and width of 10 cm. Each layer was wrapped after complete drying of previous layer.

#### Subjecting of *sharava* to classical *puta*

A cylindrical pit measuring one *Rajahastha* i. e 22 inches in breadth and depth was used. The 2/3<sup>rd</sup> pit of *Gajaputa* was filled with 750 cowdung cakes. Then *sharava samputa* was placed over it. Thermocouple of the pyrometer was placed vertically from the side of the pit at the junction of lower 2/3<sup>rd</sup> and upper 1/3<sup>rd</sup> near the *sharava samputa*. Remaining 1/3<sup>rd</sup> of the pit was filled with 250 cowdung cakes. Then the *puta* was ignited from all the four sides. The temperature was recorded with the help of thermocouple with pyrometer at interval of 15 minutes. After complete burning of cowdung cakes, the *puta* was allowed for self cooling. Then the *sharava samputa* was taken out from the pit and the burnt *sandhi bandhana* was removed cautiously and the prepared *Lokanatha rasa* was collected from the *sharava*, weighed, powdered and subjected for further analytical study.

**Table No 2: Temperature Pattern For *Gajaputa*.**

Sl no	Time in hours	Temperature in °C
	11 am	28 <sup>0</sup> C
	11. 15	80 <sup>0</sup> C
	11. 30	170 <sup>0</sup> C
	12 pm	262 <sup>0</sup> C
	12. 15	512 <sup>0</sup> C
	12. 30	623 <sup>0</sup> C
	12. 45	704 <sup>0</sup> C

	1. 00	901 <sup>0</sup> C
	1. 15	960 <sup>0</sup> C
	1. 30	1016 <sup>0</sup> C
	1. 45	1032 <sup>0</sup> C
	2. 00	1047 <sup>0</sup> C
	2. 15	1168 <sup>0</sup> C
	2. 30	1200 <sup>0</sup> C
	2. 45	1255 <sup>0</sup> C
	3. 00	1130 <sup>0</sup> C
	3. 30	933 <sup>0</sup> C
	4. 00	695 <sup>0</sup> C
	4. 30	428 <sup>0</sup> C
	5. 00 pm	312 <sup>0</sup> C
	7. 00 am	28 <sup>0</sup> C

#### OBSERVATION

For *Gajaputa* according to the classical reference, on average 1000 commercial cow dung cakes were used. Average weight of each cow dung cake was around 25-30 g. And therefore total weight of cow dung cakes was around 27 kg.

Initially after igniting the cow dung cakes the temperature was not so intense but later once all the cakes caught fire, the temperature steadily rised.

The maximum temperature reached was 1255<sup>0</sup>C. From this time it took almost 16 hours to come to room temperature.

The *poorita Kapardas* were completely burnt and brittle on touch. It was easy to powder and took 20 minutes to make into fine powder in the *khalwa yantra*.

#### Precautions

Each layer of *sandhi bandhana* should be completely dried before application of the next one.

*Sharava samputa* should be placed evenly in the centre of *puta* for proper *paka* on all sides.

*Sharava samputa* should be removed from the pit only after proper self cooling.

Weight of the sample: 66 g

#### ORGANOLEPTIC TESTS

Form: *Bhasma* form(fine powder)

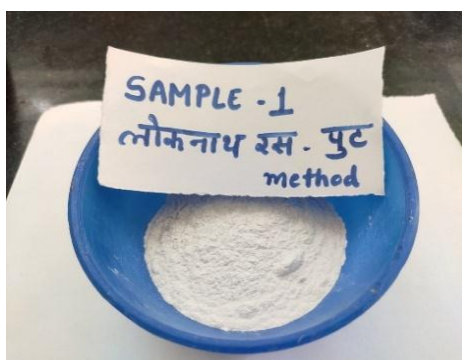
Colour: creamish white.

Taste: no characteristic taste

Odour: no characteristic odour

Consistency: solid

## IMAGES



## DISCUSSION

When any *rasa dravya* or any compound formulation undergoes any heating procedure, the proper stage of end product obtained is known as *paka*. This *paka* should be optimum. It should not be more or less, and the formation of such *paka* is the most sensitive index of optimum heating. Thus the unit of heat required to obtain the optimum *paka* is called as *puta*.<sup>[2]</sup> The different types of *puta* indicate the qualitative as well as quantitative measures of heating.

Benefits of *puta*

1. Proper *puta* helps in *shodhana* of the *rasadravya*.
2. It helps in detoxification.
3. It makes the formulation more potent.
4. The formulation can be easily absorbed and assimilated in the body.

## CONCLUSION

On pharmaceutical analysis the Lokanatha rasa prepared in classical *puta* was very fine and creamish white in colour and also passed the Bhasma pariksha like Rekhapoorna and Varitara.

## BIBLIOGRAPHY

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