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Standardization of the preparation of a herbo-mineral formulation *Shwasakasari Rasa*

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ABSTRACT

Shwasakasari Rasa is mentioned in *Rasa Yoga Sagar*,^[1] (part 2) as a remedy of *Shwasa* & *Kaasa Roga*. This type of *Rasa Aushadhi* are more effective against bacteria. These drugs have a multi dimension effect like *Broad-spectrum antibiotics*. In this study an endeavor has been made to determine standard procedure for preparation of the research formulation i.e. *Shwasakasari Rasa*. SOPs (Standard Operating Procedure) for pharmaceuticals are associated with quality assurance, internal control, production maintenance, utility and human resources or also defined as established or prescribed methods to be strictly followed for the preparation of particular formulations by a selected method. In this section of the research study all the processes adapted for the preparation of *Shwasakasari Rasa* are well elaborated with explicit detail of quantity, duration, heating pattern, temperature, material & methods together with timely observed and recorded values. Therefore, *Shwasakasari Rasa* was prepared in the department & analyse all contents present in *Rasa Aushadhi* for the establishment of drug for the benefit of society and mankind.

Key words: *Shwasakasari Rasa*, *Shwasa*, *Kasa*, *Rasa Aushadhi*, *Standardization*

INTRODUCTION

In *Ayurveda* many branches are mentioned for the management of normal health status and for cure of different ailment. The *Rasa Shastra* is one of the aspect of *Ayurveda* which deals with the use of mineral, metal, herbal and animal origin product. In *Ayurveda*, *Shwasa Rog* is described as exposure to etiological factors leads

to vitiation of *Kapha* along with *Vata* which causes obstruction of *Pranavaha Srotas*. About 65 million people suffer from *Chronic Obstructive Pulmonary Disease (COPD)*,^[2] and 3 million dies from it each year making it the third leading cause of death worldwide. About 334 million people suffer from *Asthma*, the most common chronic disease of childhood affecting 14% of all children. Covid-19 worldwide century disaster which involves Respiratory system specially lungs.

Ayurveda pharmacology and holistic health care system prescribes usage of *Rasa Aushadhi* for the body. Numbers of herbo-mineral preparations are available in various *Ayurvedic* classics out of which *Shwasakasari Rasa* is unique and contains *Parad*, *Gandhak*, *Pippali*, *Haritaki*, *Gorakhmundi*, *Vasa*, *Vibhitaki* and indicated in all type of *Shwasa* and *Kasa Roga*. A detailed practical study has been carried out in the purification of the ingredients and during the preparation of *Shwasakasari Rasa*. Hence Standardization of the

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preparation of a Herbo- Mineral Formulation of *Shwasakasari Rasa* has been carried out.

AIM AND OBJECTIVES

- To identify and procured genuine samples of raw drugs (*Parada, Gandhak, Pippali, Haritaki, Gorakhmundi, Vasa, Vibhitaki*) and *Bhavanadravya (Vatsanabh)*.
- To carry out the pharmaceutical study of *Shwasakasari Rasa*.

MATERIALS AND METHODS

- All the raw drug material procured from pharmacy of Pt. K.L.S. Govt. Ayurveda College & Institute, BHOPAL.
- Shwasakasari Rasa* was prepared in the department of *Rasa Shastra and Bhaishajya Kalpana*, Pt. K.L.S Govt. Ayurveda College & Institute, Bhopal.

Table 1: Showing the list of Ingredients of *Shwasakasari Rasa*.

SN	Ingredients	Botanical name	Quantity	Part used
1.	<i>Shu. Parada</i>	Mercury	1 part	-
2.	<i>Shu. Gandhaka</i>	Sulphur	1 part	-
3.	<i>Pippali</i>	<i>Piper longum</i>	1 part	<i>Phal</i>
4.	<i>Haritaki</i>	<i>Terminalia chebula</i>	1 part	<i>Phal</i>
5.	<i>Gorakhmundi</i>	<i>Sphaeranthus indicus</i>	1 part	<i>Phal</i>
6.	<i>Vasa</i>	<i>Adhatoda vasica</i>	1 part	<i>Patra</i>
7.	<i>Vibhitaki</i>	<i>Terminalia bellirica</i>	1 part	<i>Phal</i>

METHODOLOGY

- Pharmaceutical process of *Shwasakasari Rasa* as per reference of *Rasa Yoga Sagar*^[2] (part II) Shlok no 895.

- Impure *Parada* was procured from authentic sources and it was purified by the *Shodhan* method as mentioned in *Rasa Tarangini*^[4] (5/27-30).
- Impure *Gandhaka* was obtained from authentic sources and it was purified by the *Shodhan* method as mentioned in *Rasa Tarangini* (8/7-12)
- Kajjali*^[5] was prepared by the mixing equal quantity of purified *Parada* and purified *Gandhak* as per reference of text.
- For the preparation of *Shwasakasari Rasa* fine powder of herbal drug *Pippali, Haritaki Gorakhmundi, Vasa, Vibhitaki*^[6] was made in equal quantity.
- Kajjali* and fine powder of herbal drugs was mix well and triturated with *Vatsnabha Kwath* and a bolus was made and wrapped in *Eranda Patra* and it was subjected to *Putpaka*.
- After period of self cooling, final product was collected and *Vati* were made in *Badar Asthi Praman*.

PHARMACEUTICAL STUDY

1) *Parada Shodhana*

Reference : *Rasa Tarangini*^[3] (5/27-30)

Principle: *Mardana and Prakshalana*

Samanya Shodhan of *Parada* was done out in two phases:

- By *Sudha Raja*
- By *Rasona* and *Saindhava*

A. *Parada Shodhana by Sudha Raja*

Date of Starting : 31/10/2022

Date of Completion : 12/11/2022

Ashudha Parada : 500 gm

Slake lime : 500 gm

METHOD

Impure *Parada* 500 gm was obtained from pharmacy of Pt. Khushilal Sharma Ayurved College Bhopal. 500 gm slake lime was taken from local market of Bhopal. *Raw*

Parada and *Sudha* were mixed together and subjected to *Mardana* in an exceedingly granite *Khalva Yantra* for 6 hours per day until the completion of prescribed period. (72 hours)

Then the mixture was subjected to *Prakshalana* from *Kharal*, warm water was added to the mixture and it had been stirred rapidly then allowed to combine the lime in water then to remove the water carefully from the *Kharal* and collect in another plastic container. The procedure was repeated till all the *Parada* wasn't obtained properly. 470 gm of *Parada* obtained through *Prakshalana* process of the mixture.

OBSERVATIONS

Table 2: Showing observation of *Parada Shodhana* by *Sudha*

Day	Time	Observation
Day 1	10:00 AM	On, resuming maximum amount of <i>Parada</i> reappeared
	4:00 PM	<i>Parada</i> gradually disappeared in lime. Light gray colour of mixture was seen.
Day 2	10:00 AM	Mixture became whitish gray & <i>Parada</i> was broken into small globules.
	4:00 PM	Mixture became offwhite & fine droplets of <i>Parada</i> was seen.
Day 3	10:00 AM	On resuming, <i>Parada</i> droplets reappeared, largest being the size of <i>Chanaka</i> .
	4:00 PM	Size of <i>Parada</i> droplets further reduced largest being the size of <i>Mudga</i> . Graycolour of mixture was seen.
Day 4	10:00 AM	On resuming, <i>Parada</i> did not reappeared.
	4:00PM	Further size reduction in <i>Parada</i> droplets was seen the largest being the size of <i>Sarsapa</i> .
Day 5	10:00 AM	<i>Parada</i> reappeared in the size of <i>Maricha</i> .
	4:00PM	Mixture became heavy and grey in colour

Day 6	10:00AM	<i>Sarshapa</i> size <i>Parada</i> droplets reappeared. No. of <i>Parada</i> droplets reduced.
	4:00 PM	Further reduction in the size and number of <i>Parada</i> droplets were seen became largest being the tip of pin head.
Day 7	10:00 AM	<i>Parada</i> droplets almost disappeared
	4:00 PM	Very small droplets equivalent to size of pin point, were visible on minute observation
Day 8	10:00 AM	No <i>Parada</i> droplets reappeared but the <i>Mardana</i> process continued.
	4:00PM	Dark gray colour of mixture was seen.
Day 9	10:00 AM	<i>Mardana</i> process continued
	4:00 PM	Dark gray colour of mixture was seen
Day 10	10:00 AM	<i>Parada</i> mix well in <i>Sudha Churna</i> .
	4:00 PM	Gray colour of mixture was seen
Day 11	10:00 AM	No <i>Parada</i> droplets seen.
	4:00 PM	Blackish colour of mixture was seen
Day 12	10:00 AM	<i>Parada</i> was homogenously mixed in the mixture but <i>Mardana</i> was continued.
	4:00 PM	<i>Mardana</i> process completed

RESULTS

Table 3: Showing result of *Parada Shodhana* by *Sudha*

Parameter	<i>Parada</i>
Initial wt.	500gm
Wt. obtained by <i>Prakshalana</i>	470 gm
Total wt. Obtained	470 gm
Loss of Wt.	30 gm

Loss of wt.%	6 %
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B. Parada Shodhana by Rasona and Saindhava.

Date of Starting : 14/11/2022

Date of Completion : 17/11/2022

Ingredients:

Prakshalit Parada : 400gm

Rason : 400 gm

Saindhava Lavana : 200 gm

Procedure

Parada obtained after *Sudha Shodhan* 400 gm was taken within the *Khalva Yantra* and *Nistusha Rasona* 400 gm, *Saindhava* 200 gm were added and *Mardana* was started. *Mardana* was done until the mixture became homogenous and blackish in colour. Total 24 hrs of *Mardana* was performed (6 hrs per day) within the duration of 3 day. After completion of *Mardana* mixture was subjected to *Prakshalana* by using warm water which was added to the mixture and stirred rapidly, then the mixture was allowed to combine in water properly. After 2 hr the water was separated into a different container carefully and therefore the remaining *Parada* was collected.

OBSERVATION

Table 4: Showing observation of Parada Shodhana by Rasona and Saindhava

Day	Time	Observation
Day 1	10:00 AM	Mixture of <i>Rasona</i> and <i>Saindhava</i> was performed but <i>Parada</i> was clearly visible.
	4:00 PM	Obnoxious smell came out from the mixture and it became slightly greenish in colour.
Day 2	10:00 AM	Mixture become dark greenish but <i>Parada</i> was clearly visible
	4:00 PM	Mixture became greenish grey and <i>Parada</i> was broken into globules

Day 3	10:00 AM	Mixture became greyish green and very small droplets of Mercury were seen.
	4:00 PM	Mixture became blackish grey and very minute droplets of Mercury were seen.
Day 4	10:00 AM	Mixture became blackish grey and <i>Parada</i> almost disappear.
	4:00 PM	Mixture became homogenous & blackish.

Table 5: Showing loss during Parada Shodhana by Rasona and Saindhava

Parameter	Parada
Initial wt.	400 gm
Wt. Obtained by <i>Prakshalana</i>	380 gm
Loss of wt.	20 gm
Loss of wt.%	5%

Figure 1: Parada Shodhana



Fig. 1.1: Impure Parada



Fig. 1.2: Sudha Churna



Fig. 1.3: Parada mixed with Sudha



Fig. 1.4: Vastragalit Parada



Fig. 1.5: Nistush Rasona



Fig. 1.6: Saindhava Lavana



Fig. 1.7: Parada mix with Rasona & Saindhava



Fig. 1.8: Prakshalan of Parada

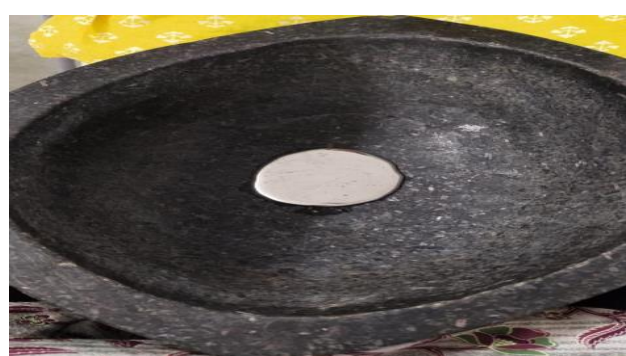


Fig. 1.9: Shuddha Parada

2) Gandhaka Shodhana

Reference : Rasatarangini^[4] (8/7-12)

Date of Starting : 21/12/22

Date of Completion : 22/12/22

Ingredients

Raw Gandhak : 500 kg

Godugdha : 2 ltr

Goghrita : 250 ml

Procedure

500 gm *Ashodhita Gandhaka* was powdered using *Khalva Yantra*, then 75 gm *Goghrita* was taken into vessel and heated on kitchen range. When *Goghrita* completely melt then powdered *Gandhaka* was added, it had been properly stirred till the whole melting of *Gandhaka*. 2 lit hot *Godugdha* was taken in another vessel and a cloth was tied over it.

Then molten *Gandhaka* and *Goghrita* was poured into the vessel containing *Godugdha* through the fabric. After self - cooling a solid mass with some granular a part of *Gandhaka* was taken out from the vessel and thoroughly washed with hot water to get rid of *Snehansha*. To remove remaining *Snehansha* *Gandhaka* was grinded to create a rough powder which was tied in a *Pottali* and *Swedana* was performed using *Dolayantra* method for 1 *Prahar*. Aforesaid procedure was repeated 3 times as per the reference to get *Shudhha Gandhak*.

OBSERVATION

- After *Shodhana* process crystalline dark yellow *Gandhaka* become granular and bright yellow and pungent smell is additionally reduced.
- Even after *Prakshalana* *Snehansha* was felt on *Gandhaka*.

Table 6: Showing observation during *Gandhaka Shodhana*

Process No.	<i>Gandhaka</i> (gm)	Amount of <i>Goghrita</i> (gm)	Amount of <i>Godugdha</i> (ml)	<i>Gandhaka</i> (gm) Obtained	Wt. loss (gm)
1.	500	125 gm	2000	485	15
2.	485	125 gm	2000	470	15
3.	470	125 gm	2000	460	10

RESULT

Table 7: Showing result during *Gandhaka Shodhana*

Parameter	<i>Gandhaka</i>
<i>Ashodhita Gandhaka</i>	500 gm
<i>Shuddha Gandhaka</i>	460 gm

Total loss of wt.	40 gm
Total loss of wt.	8%

Figure 2: *Gandhaka Shodhana*



Fig. 2.1: Impure *Gandhaka*

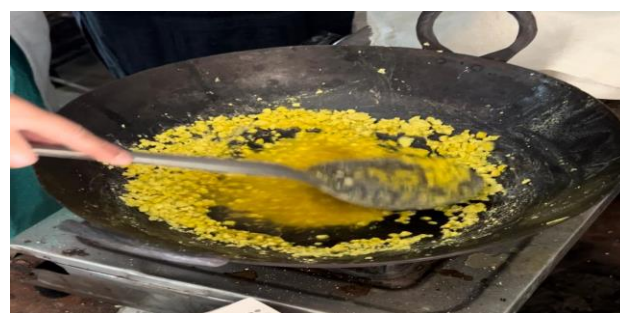


Fig. 2.2: Melting of *Gandhaka* in *Goghrit*



Fig. 2.3: Impurities



Fig. 2.4: Pure *Gandhaka*

3) Preparation of *Samguna Kajjali*

Reference : Rasa Tarangini^[5] (6/107)

Date of Starting : 17/01/23

Date of Completion : 1/02/23

Ingredients

Shuddha Parada - 250 gm

Shuddha Gandhaka – 250 gm

Procedure

Shuddha Parada and *Shuddha Gandhaka* were taken in *Khalva Yantra*. Trituration was continued till the powder became black in colour and very fine like *Kajjali*. Whole mixture was converted into a fine, smooth, lusterless. All the criteria of *Kajjali* was fulfilled.

OBSERVATION

Table 8: Preparation of *Samguna Kajjali*

Day	Time	Observation
Day 1	12 - 4.00 PM	Equal amount of <i>Shuddha Parada</i> & <i>Gandhaka</i> was mix & <i>Mardan</i> start. Yellowish colour of <i>Gandhaka</i> started turning slightly olive green colour.
Day 2	12 - 4.00 PM	Larger <i>Parada</i> globules became small one. <i>Parada</i> was mix completely with <i>Gandhaka</i> .
Day 3	12 - 4.00 PM	<i>Parada</i> observed in mixture appeared yellow green colour. Greyish green colour with shiny globules.
Day 4	12 - 4.00 PM	Cement colour with yellow trace
Day 5	12 - 4.00 PM	Absence of <i>Parada</i> globules, light grey coloured mixture was seen. Mixture was fully grey in colour.
Day 6	12 - 4.00 PM	Blackish grey colour
Day 7	12 - 4.00 PM	Blackish colour with shiny particle of <i>Parada</i> seen

Day 8	12 - 4.00 PM	Dark black colour of <i>Kajjali</i> appears.
Day 9	12 - 4.00 PM	Test of <i>Kajjali</i> i.e., <i>Rekhapurnatva</i> , <i>Varitara</i> etc. was absent.
Day 10	12 - 4.00 PM	Blackish colour of <i>Kajjali</i> was seen & shining was present.
Day 11	12 - 4.00 PM	Shining particles are still seen.
Day 12	12 - 4.00 PM	<i>Varitara</i> , <i>Rekhapurnatva</i> and <i>Shlakshnatva</i> examination was fulfilled & found positive.
Day 13	12 - 4.00 PM	<i>Kajjali</i> was taken b/w wet Index finger & palm and rubbed. Few Shining particle of mercury was seen under bright sunlight.
Day 14	12 - 4.00 PM	Shining particle was still present.
Day 15	12 - 4.00 PM	<i>Nishchandratva</i> test for <i>Kajjali</i> was conducted. No shining particles were seen when exposed to sunlight. So <i>Nishchandratva</i> test was positive.

Organoleptic Test

Table 9: Showing observation after *Kajjali* preparation.

Parameters	Observation
Colour	Black
Taste	Tasteless
Odour	Sulphur
Touch	Soft and Smooth
Appearance	<i>Anjana Sadrisha</i>

RESULTS

Table 10: Showing result after *Kajjali* Preparation.

Time duration	<i>Kajjali</i>
Time duration	60 hr
No of Days	15 days (4 hr /day)
<i>Shuddha Parada</i>	250 gm

Shuddha Gandhaka	250 gm
Final weight of prepared Kajjali	470 gm
Loss of weight	30 gm
Percentage loss	6%

Figure 3: Preparation of Samaguna Kajjali



Fig. 3.1: Shuddha Parada



Fig. 3.2: Shuddha Gandhaka



Fig. 3.3: Parada mix with Gandhaka



Fig. 3.4: Kajjali

4) Preparations of Powders (Ref. Sha.Sa.Ma.Kh)^[6] (6/1)

Procedure

Raw drugs were subjected to grinding in a mixture grinder for 10 minutes one by one. After grinding, Churna was collected separately and sieved. The procedure was repeated until complete fine powder was obtained.

RESULTS

Table 11: Showing result of Churna

SN	Drugs	Initial wt. of Raw Materials	Weight of final Product	Loss of weight
1.	Pippali	500gm	400 gm	100 gm
2.	Haritaki	500gm	390 gm	110 gm
3.	Gorakhmundi	500gm	380 gm	120 gm
4.	Vasa	500gm	370 gm	130 gm
5.	Vibhitaki	500gm	395 gm	105 gm

5) Vatsanabha Shodhana

Date of starting : 4/02/2023

Date of completion : 09/02/2023

Reference : Rasa Tarangini^[7] (24/19-22)

Materials : Ashuddha Vatsanabha (500 gm), Gomutra (1 lit /day), Warm water

Procedure

Initially *Ashuddha Vatsanabha* (500 gm) was washed with water & dried, broke into *Chanaka* size pieces (*Vatsanabha Kanda*). *Gomutra* (2 lit was taken in stainless steel vessel or plastic container. *Vatsanabha* pieces were dipped in *Gomutra* then vessel was kept in sunlight as per reference of *Rasa Tarangini*. On next day, the *Gomutra* was in the vessel was taken out & new *Gomutra* added to *Vatsanabha*. This same procedure was repeated for 3 days. On 4th day *Vatsanabha Kanda* were separated from *Gomutra* & washed with warm water. External layer of *Vatsanabha Kanda* were separated by knife. After that *Vatsanabha Pariksha* was done with the help of needle & dried in sunlight. *Vatsanabh Kand* which was not passed the *Pariksha* was again dipped in *Gomutra*. Then the dried pieces of *Vatsanabha* were kept in container.

OBSERVATIONS

- When *Parikshana* of *Vatsanabha* was done, needle easily passed through it.

RESULT

Table 12: Showing result of *Vatsanabha Sahodhan*.

Parameters	Vatsanabha
Initial wt.	500gm
Wt. obtained after <i>Shodhana</i>	350 gm
Loss of Wt.	150 gm
Loss of Wt. %	30%

Figure 4: *Vatsanabha Shodhana*



Fig. 4.1: *Ashuddha Vatsanabh*



Fig. 4.2: *Yavakut* of *Vatsanabha*



Fig. 4.3: *Vatsanabha* dip in *Gomutra*



Fig. 4.4: *Shuddha Vatsanabha*

6) Preparation of *Shwasakasari Rasa*^[8]

Reference : *Rasa Yoga Sagar*

Procedure : *Putapaka*

Date of Starting : 19/02/2023

Date of Completion: 20/02/2023

No. of cow dung cake : 3

Average weight of cow dung cake : 580 gm

MATERIALS

Table 13: Showing ingredients of Shwasakasari Rasa.

SN	Ingredients	Weight
1.	Kajjali	100 gm
2.	Pippali	50 gm
3.	Vasa	50 gm
4.	Haritaki	50 gm
5.	Vibhitaki	50 gm
6.	Gorakmundi	50 gm

METHOD

Purva Karma

Firstly, *Kajjali* was prepared by *Samguna Parada & Gandhaka*. Fine Churn of raw drug was prepared. *Vatsanabh Kwath* was prepared. For further *Putpaak* process *Upalas* and pyrometer were arranged.

Pradhana Karma

Kajjali was triturated for atleast 1 to 2 hour. Then *Samguna Kajjali* (100 gm) and Raw drugs *Churna* of *Pippali*, *Gorakmundi*, *Vasa*, *Vibhitaki* & *Haritaki* each 50 gm were taken are triturated for sometime. Next 250 ml *Vatsnabh Kwath* was added in the mixture of *Samguna Kajjali* & Raw Drugs, then trituration process starts for few hours until the mixture become even. After that Bolus were made & kept sometimes and wrapped with *Erand Patra* & tied with thread and 3 layers of $\frac{1}{2}$ *Angul Mrittika* & 3 layer of *Kapadmitti* was done one by one & kept for drying. Then complete bolus was subjected to *Putpaak* process & *Laghu Puta* was given. In traditional *Laghuput* procedure, firstly $\frac{2}{3}$ of the *Putra* was filled by cow dung then bolus was kept and $\frac{1}{3}$ part was filled by cow dung cakes. Then thermocouple was arranged underneath Bolus and temperature were recorded carefully.

Paschat Karma

After *Swangsheetsa*, bolus was taken out and examined for *Siddhi Lakshan*. Then bolus was triturated with *Vasa*

Swaras and *Badar Asthi Praman Vati* was made. After that drying of *Vati* was done and continued till there was no more weight difference. Then the *Vati* were counted and preserved in air tight container.

OBSERVATIONS

Table 14: Showing Temperature Pattern in Putpaak process of Shwasakasari Rasa.

Time	Temperature in °C
1:00	35
1:10	208
1:20	397
1:30	502
1:40	570
1:50	498
2:00	385
2:15	259
2:30	236
2:45	183
3:00	152
3:15	130
3:30	110
3:45	90
4:00	77
4:15	63
4:30	57
4:45	41
5:00	30

Table 15: Showing observation of Shwasakasari Rasa.

Parameters	Observation
Colour	Black
Taste	Bitter
Odour	Pungent

Touch	Rough
Appearance	Blackish

RESULT

Table 16: Showing Result of Putpaak

Parameters	Weight
Initial wt. of <i>Shwasakasari Rasa</i> bolus	110 gm
Weight after <i>Putpaak</i>	80 gm
Total loss of wt.	30 gm
Total loss of wt. %	37.5%
Final wt. of <i>Vati</i>	60 gm

Figure 5: Preparation of *Shwasakasari Rasa*



Fig. 5.1: Powders of Herbal Drugs



Fig. 5.2: *Kajjali*



Fig. 5.3: Adding of *Vatsanabh Kwath* in mixture



Fig. 5.4: Bolus



Fig. 5.5: Bolus wrapped with *Eranda Patra* & *Mitti* & *Vastra*



Fig. 5.6: Bolus subjected to *Putpaka*



Fig. 5.7: Bolus after Swangshit



Fig. 5.8: Trituration with Vasa Kwath



Fig. 5.9: Shwaskasari Rasa

DISCUSSION

Parada Shodhan

In standardization method in order to get rid of impurities present in the *Parada*. As limestone, garlic & salt are easily available, so this method was chosen for the purification of *Parada*. Purification of *Parada* is very important before using it in any formulation indicated for internal administration such as *Shwasakasari Rasa*. Total quantity of *Parada* taken was 500 gm for *Shodhan* with *Sudha Churna* & after its

Shodhan 470 gm of *Parada* was achieved. Out of this 470 gm of *Parada* 400 gm was taken for further *Shodhan* with garlic & salt, and after *Shodhan*, *Shodhit Parada* got was 380 gm. Loss of *Parada* in gm is 20 gm & in % is 5%. The loss of *Parada* due to its five *Gati* as mentioned in classical text. *Shodhit Parada* observed was bright, shiny, white in colour because whole impurities get dissolved in *Sudha Churn*, garlic & salts. Total trituration hour taken was 96 hr. During this *Shodhan* process many observations were noted in regular interval of period.

Gandhak Shodhan

After the purification of *Gandhaka* it can be used safely for formulation of *Shwasakasari Rasa*. *Sulphur Shodhan* was done in *Godugdha* & *Goghrita*. As many *Shodhan* method has been given in classical text. The repeated heating, melting and sudden cooling of sulphur by pouring it into liquid media may cause loosening of the bonds between the molecules making it amorphous in nature. This loosening of the bonds may be helpful in dissolving the impurities in the media thus separating it from the sulphur, making it pure. 500 gm of *sulphur* was taken for *Shodhan* after process *Shuddha Gandhaka* got 460 gm. Loss of wt. in gm is 40gm & in % is 8% was observed. This loss could be because of removal of physical & chemical impurities in the form of sand particles & loss during washing. Colour change was observed after *Shodhan* of *Gandhaka*.

Vatsanabha Shodhan

There are 3 important methods for *Vatsanabha Sodhana*. But, for the preparation of the medicine for *Swasa* & *Kasa* the drug of choice of *Vatsanabha Shodhana* was *Gomutra* compared to *Gougdha*, since *Gomutra* has *Vatakaphahara* property. This was the reason for choosing this method for *Vatsanabha Sodhana*. During *Vatsanabha Sodhana*, each time after *Gomutranimajjana*, analysis of *Gomutra* was done. pH of *Gomutra* was found to be decreased (became more acidic) after each *Sodhana*. *Shuddha Vatsanabh* was used in the preparation of *Vatsanabh Kwath*. It was used in trituration of drugs to make bolus.

Preparation of Shwasakasari Rasa

Pharmaceutical method adopted in the study was *Shodhan*, *Mardana* & *Putpaka* method. The total wt. of the finished product i.e., *Shwasakasari Rasa* was decreased due to *Putpaka* method. *Parada* wt. also decreases due to its *Gati* during trituration. *Gandhaka* wt. is also reduced after *Shodhan* because impurities get removed. After *Shodhan* wt. of *Vatsanabh* decreases due to pilling of its layer & then dried. *Putpaka* method of *Shwasakasari Rasa* was described in *Rasayog Sagar*, in this method *Kajjali* & fine powder of raw drugs (*Pippali*, *Gorakhmundi*, *Vasa*, *Vibhitaki*, *Haritaki*) was triturated with *Vatsanabha Kwath* & bolus is prepared. Bolus is wrapped in *Eranda Patra* & 3 layers of *Mitti* & 3 layers of *Kapadmitti* was wrapped one by one & *Laghuput* was given, temp given upto 570°C & kept for self cooling. When it is self cooled red droplets were seen on the *Eranda Patra*. Bolus wt. is 110 gm & after *Putpaka* wt. reduced to 80 gm. After trituration with *Vasa Kwath Badarasthi Praman Vati* were made & get dried. Final wt. of *Shwasakasari Rasa* got 60 gm.

CONCLUSION

Samaskar is defined as "*Gunantaradhana*" it enhances the quality & efficacy of drug. Pharmaceutical procedure adopted in study of *Shwasakasari Rasa* was *Shodhan* & *Putpaka*. The ultimate objective of *Shodhan* process is to increase the bioavailability of the drug & further potentiating the biological efficacy. Many *Shodhana* methods were mentioned for the purification of the ingredients of *Shwasakasari Rasa*. To standardize a process, proper analysis should be done in each step. So, a detailed analytical study of each procedure during the preparation of *Shwasakasari Rasa* was conducted in present study and observations were noted carefully. In this study best method of

Parada, *Gandhak* & *Vatsanabh Shodhan* was done so that it increases the quality & efficacy of drug. *Putpaka* method was done for the preparation of *Shwasakasari Rasa* so that it increases its efficacy.

REFERENCES

1. Hariprapanna Sharma. *Rasayog Sagar*, Volume 2, Chaukhamba Krishnadas Academy, Varanasi. Jan 2011, page no 467.
2. <https://www.ncbi.nlm.nih.gov>
3. Pranacharya Shri Sadanan Sharma, Pt. Kashinath Shastri, *Ras Tarangini*, edition, Varanasi, Chaukhamba Orientalia. 2004, page no 79.
4. Pranacharya Shri Sadanan Sharma, Pt. Kashinath Shastri, *Ras Tarangini*, 11 Edition, Varanasi, Chaukhamba Orientalia. 2004; page no 176.
5. Pranacharya Shri Sadanan Sharma, Pt. Kashinath Shastri, *Ras Tarangini*, 11 Edition, Varanasi, Chaukhamba Orientalia 2004; page no 124.
6. Brahmanand Tripathi. *Sharangdhara Samhita Madhyam Khand (6/1)*, 6th edition Varanasi, Chaukhamba Orientalia. 2005, page no 116.
7. Pranacharya Shri Sadanan Sharma, Pt. Kashinath Shastri, *Ras Tarangini*, 11 Edition, Varanasi, Chaukhamba Orientalia. 2004; page no 651.
8. Hariprapanna Sharma. *Rasayog Sagar*, Volume 2, Chaukhamba Krishnadas Academy, Varanasi. Jan 2011, page no 467.

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