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Research Article

PHARMACEUTICAL STUDY OF KUSHTHANASHANA RASA

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ABSTRACT

Rasashastra is known as ancient medicinal chemistry of the world. Acharya Nagarjuna and its Acharya widely used Parada (Mercury) for preparation of medicines. Parada murchida Rasaushadhi's divided in 4 main categories as Kharaliya Rasayana, Kupipakva Rasayana, Parpati Rasayana, Pottali Rasayana. Kushthanashana Rasa is also one of the Kharaliya Rasayana also contains one Kupipakva Rasayana (Rasasindoor) as an ingredient. Kushthanashana Rasa is a combination of drugs containing Rasasindoor, Gandhaka, Chitrakmool, Marich, Bakuchi. This Rasa has been mentioned as Sarvakushthavinashana (use in all skin diseases) in Rasaratnasamucchaya grantha as all the contents of this Rasa having the property against skin disorder.

Keywords: Parada, Rasashastra, Rasaushadhi, Kushthanashana Rasa

INTRODUCTION

Nowadays with the changing life style, stress and dietary habits various health issues are raising their heads. One of such name is "Kushtha" (skin diseases). It includes all Twachavikara (Skin disorder). Rasashastra has large variety of Rasaushadhi aiding on these issues. One of them is "Kushthanashana rasa". Formulation of "Kushthanashana rasa" is design to cover all aspect of Twachavikara (Skin disorder) ¹. This rasa come under both Kharaliya and Kupipakva rasayana. Kushthanashana Rasa is a herbo-mineral combination of drugs containing Rasasindoor, Gandhaka, Chitrakmool (*Plumbago zeylanica*), Marich (*Piper nigrum*), Bakuchi (*Psoralea corylifolia*). The ingredients of Kushthanashana rasa are highly effective in improving condition of all Twachavikara (Skin disorder).

Being Rasavaidya or Ayurvedic practitioner, Theoretical as well as Practical knowledge is very important. Practice (Abhyas) gives Samyagdnyan (balanced knowledge) of and Pratyaksha (Practical). While preparing "Kushthanashana Rasa", shodhana (Purification) of Parada (Mercury), Gandhaka (Sulphur) and Bakuchibeej (Seeds of *Psoralea corylifolia*) was studied and also preparation of Rasasindoor (Kupipakva Rasayana) was studied.

Aim

To study the process of Preparation of "Kushthanashana Rasa".

Objectives

1. To study preparation of "Kushthanashana Rasa" according to Ras-ratnasamucchaya 20/86.
2. To highlight the concept of "Kupipakva Rasayana."

MATERIAL AND METHODS

Preparation of Kushthanashana Rasa include following practical study.

Practical No.1- Parada Shodhana (Purification of Mercury) ³

Type of procedure- Mardan (trituration)

Equipments- Khalvayantra (Mortar and pestle), measuring jar, cloth for filtration, gas stove, aluminum vessels, weighing machine, knife.

Ingredient- Ashuddha Parada (Impure Mercury)-1000 gm, Sudha (Lime powder)-1000 gm, Lasuna-700 gm, Saindhava Lavana (Rock salt)- 350 gm

Procedure: (Figure 1)

1. Ashuddha Parada (Impure Mercury) and Sudha (lime powder) in same proportion were mixed in Khalva Yantra (Mortar and pestle) and triturated for 36 hours. Then the mixture was washed with warm water and Parada (Mercury) was separated from Sudha (lime powder).
2. In Parada (Mercury) equal quantity of Lasuna kalka (Garlic paste) and half the quantity of Saindhava Lavana (Rock salt) was added. This mixture was triturated till the Lashuna kalka (Garlic paste) get black color. After that mixture was washed with warm water and Parada (Mercury) was collected.

Practical No. 2-Gandhaka Shodhana (Purification of Sulfer) ⁴

Type of Procedure-Dhalana (pour)

Equipments-Khalva Yantra (Mortar and pestle), Gas stove, White cotton cloth, Aluminum vessel, Mixer grinder, measuring cylinder

Ingredients-Ashuddha Gandhaka (Impure Sulphur)-1000 gm, Goghrita (Cow ghee-1000 gm, Godugdha (Cow milk)-3 liter, Luke warm water-as required

Procedure: (Figure 2)

One liter of Godugdha (Cow milk) was taken in iron vessel and cloth was tied over mouth of vessel. After that Goghrita (cow-ghee) was taken in aluminum vessel and heated it at Mandagni (low flame). Gandhak (Sulphur) powder was added to it and mixture was stirred continuously. When the Gandhak (Sulphur) melted completely, heating was stopped and poured the melted Gandhaka (Sulphur) on the cloth tie over vessel which contains Godugdha (Cow milk). After 10 min dhalit Gandhak (poured Sulphur) was taken out from godugdha (Cow milk), crushed and washed out with hot water till it gets free from goghrita (Cow ghee) and godugdha (Cow milk). This process was repeated for twice.

Practical No. 3-Preparation of Kajjali ⁵

Type of the Procedure-Mardana (trituration)

Equipments-Khalvayantra (Mortar and pestle), spatula, steel plate, weighing machine etc.

Ingredients- Shuddha Parada (Purified Mercury)-700 gm, Shuddha Gandhaka (Purified Sulphur)-700 gm

Procedure- (Figure3)

Shuddha Parada (Purified Mercury) and Shuddha Gandhaka (Purified Sulphur) were taken in equal quantity and triturated in Khalva Yantra (Mortar and pestle). After some time of trituration, the silvery white color of Parada (Mercury) and light yellow color of Gandhaka (Sulfur) disappeared and a light grey color powder was formed. The Mardana (trituration) was continued till the powder became black in color and the shine of Mercury lost completely and fulfilled all the criteria of Kajjali.

Practical No.4-Bhavana of Vatankura Swarasa to prepare Samaguna Kajjali ⁶

Type of Procedure-Bhavana (levigation)

Ingredients- Samaguna Kajjali -300 gm, Vatankura Swarasa (juice of Ficus benghalensis)-as required

Equipments-Khalvayantra (Mortar and pestle), Spatula, aluminium vessel, measuring cylinder etc.

Procedure: (Figure 4)

300 gm of Prepared Samaguna Kajjali was weighed and kept in Khalvayantra (Mortar and pestle). Vatankura Swarasa (juice of Ficus benghalensis) was prepared and added to the Kajjali. Mardana (trituration) was done continuously till swarasa (juice) was dried up.

Practical No. 5-Rasasindoora Nirmana ⁶

Type of the procedure-Sagandha-Saagni Murcchana

Equipments-khalvayantra (Mortar and pestle), Valukayantra, Kachakupi (glass bottle) , Loha Shalaka (Iron rod), Gas-stove, Gas cylinder, Pyrometer, Copper Plate, Torch, White cement, Conical piece of brick, etc.

Ingredient- Vatankura Swarasa bhavit Kajjali -315 gm

Procedure- The Rasasindoora nirmana procedure was divided into 3 parts. (Figure 5)

Purva Karma (Pre-Operative) - All essential equipments had been collected.

Kupi (bottle) - brown color glass bottle was taken.

Kapadmitti-Mruttika-Mulatani Cloth-Cotton

Application

Water was added in Multanimruttika and semisolid mixture was prepared. Firstly, thin layer of mixture was applied over Kupi (bottle). After that, mixture was applied over piece of cloth. This cloth was applied over Kupi (bottle). Again one layer of clay was applied and kept it for drying. When first matakapada was dried well, next matakapada was applied. Such 7 layers of Kapadamitti were done.

Valukayantra- Specially designed, Modified Portable Valukayantra was prepared.⁷

Modified Portable Valukayantra is a unit which consists of following components:

Outer Iron Jacket, Inner Drum (Main Body), Glass Bottle (Kachakupi), Sand, Handles, Hollow Iron Pipe, LPG Burner, Pyrometer, Gas stove and Gas cylinder

Shalaka (Iron rod) -Iron rod having 1cm thickness was taken.

Others- Torch, Copper coil.

Kupibharana (filling of Bottle)

The Kupi (bottle) was filled up to 1/3 rd part by Kajjali with the help of funnel.

1. Before applying matakapada to Kupi (bottle), measurement was taken up to which Kajjali should be filled.
2. This Kupi (bottle) was kept exactly at the centre of Valukayantra.

Pradhana Karma (Operative)

1. Heat was started from room temperature and was gradually increased.
2. The temperature was recorded every 30 min by Pyrometer.
3. 6 hour mandagni (slow heat) was given. After that madhyamagni (moderate heat) was started.
4. During the course of madhyamagni (moderate heat), red hot shalaka (iron rod) was repeatedly inserted in the mouth of Kachkupi (glass bottle) to burn accumulated Sulfur at the neck of the bottle to prevent blocking. With the rise of temperature, the Sulfur fumes increased.
5. Gradually this fumes replaced by blue flames.
6. When blue flames disappeared, the bottom of Kupi (glass bottle) seen red hot.
7. After that copper plate test done repeatedly. When Copper plate placed over mouth of Kupi (glass bottle), small globules of Mercury were seen on plate, at this stage Mukhamudran (corking) was done. Then 6 hour Tivragni (high heat) was given.
8. After that the apparatus was allowed for Swangashitkarana (self-cooling).

Paschata Karma (Post-Operative)

- 1) When apparatus get cooled, the Kupi (glass bottle) was removed from Valukayantra.
- 2) Then layer of Kapadamitti was scrapped off using knife and Kupi (glass bottle) was clean with wet cloth. After that level of final product was marked at the neck of bottle.
- 3) A jute thread soaked in kerosene was tied 1 inch below the marking and set to fire. The kupi (glass bottle) kept horizontal and rotate to burn. Wet cloth was covered over burnt region. The kupi (glass bottle) was broken at the level of thread.
- 4) Kanthastha Rasasindoora was scrapped by using knife and weighted and collected in glass bottle.

Precautions

- 1) Kajjali was triturated for 1 hour before filling it in Kupi (glass bottle).

- 2) During filling of Valuka (sand) in yantra, the mouth of Kupi (glass bottle) was closed to avoid adulteration of dust in it. Pyrometer was placed 5cm away from Kupi (glass bottle). Heat is given in Kramagni (heat in increasing order) pattern.
- 3) During the process of Mukhamudran (corking), heat was reduced.
- 4) Kupiuddharana and Kupibhedana (breaking of Bottle) procedures were done with care to avoid broken of Kupi (glass bottle).
- 5) While scrapping Sindura, care taken so that no part of the glass pieces were mix with the Sindura.

Practical No. 6- Bakuchibeej Shodhana (Purification of Seeds of *Psoralea corylifolia*)

Type of Procedure- Nimajjan

Equipment- aluminum vessels, steel plate, sieve etc.

Ingredients- Ashuddha Bakuchibeej (impure *Psoralea corylifolia*)-500gm, Gomutra (cow urine)-as required, Hot water-as required

Procedure: Firstly, the physical impurities like small stones and other adulterant was removed. Then Gomutra (cow urine) was taken in an aluminum pot, Bakuchibeej (Seeds of *Psoralea corylifolia*) was dipped in it. On the next day, the Gomutra (cow urine) in the pot was taken out and new Gomutra (cow urine) was added. This procedure was repeated 6 times more. On last day, Bakuchibeej (Seeds of *Psoralea corylifolia*) were separated from Gomutra (cow urine) and washed with hot water. After that Bakuchibeej (Seeds of *Psoralea corylifolia*) were dried in sunlight. Then the dried Bakuchibeej (Seeds of *Psoralea corylifolia*) were grinded in Mixer grinder to form powder.

Practical No. 7- Preparation of Kushthanashana Rasa ¹

Equipments- Khalvayantra (Mortar and pestle), Spatula, Weighing machine, Sieve, Mixer grinder, Aluminum vessels, cotton cloth etc.

Type of Procedure- Mardan (trituration)

Ingredients- Rasa sindur-1gm, Gandhak (Sulfur)- 32gm, Chitrakmool churna (*Plumbago zeylanica*)- 36gm, Marich churna (*Piper nigrum*)- 96gm, Bakuchibeej churna (*Psoralea corylifolia*)- 192gm

Procedure- (Figure 6) Firstly, all the ingredients weighted accurately and sieved through the cloth. Then Rasasindoora was taken in Khalvayantra (Mortar and pestle) and triturated it. After that Gandhak (Sulfur) powder was mix in khala (Mortar) and Mardana (trituration) was done. After proper mixing of above mixture, the Chitrakmool churna (*Plumbago zeylanica*), Marichchurna (*Piper nigrum*), Bakuchibeej churna (*Psoralea corylifolia*) were mixed in it and triturated well. The uniform churna (powder) was prepared and packed in air tight container.

OBSERVATIONS

The facts observed during the process of preparation of Kushthanashana Rasa are described as below.

Parada Shodhana (Purification of Mercury)- (Table 1 and 2)

- a) After the 36 hours of trituration completed, the mixture was washed with warm water. Due to heaviness Parada (Mercury) was settled down at bottom.
- b) Water mixed with Sudha (Lime) was changed till water become colorless.
- c) Some small globules of parade were floated on water and lost with water.

Gandhaka Shodhana (Purification of Sulfur)

- a) The physical impurities like stones, thread, mixed pieces were observed on the cloth.
- b) Purified Gandhaka (Sulfur) collected in the form of granules at the bottom of vessel.
- c) After dipping melted Gandhaka (Sulfur) into Godugdha (Cow milk), it became hot.
- d) Brownish ghrita (Ghee) was float over godugdha (Cow milk). Layer of ghrita (Ghee) also seen over water.
- e) Smell of Gandhaka (Sulfur) was reduced.
- f) After drying and powdered shuddha Gandhaka (Purified Sulfur) became light yellow.
- g) After shodhana Gandhaka (Purified Sulfur) became soft and its crystalline appearance lost.

Kajjali Nirmana (Preparation of Kajjali) – (Table 3)

Rasasindoora Nirmana (Preparation of Rasasindoora) – (Table 4)

Total duration of heat-20 hours
Duration of Swahgashitikarana-24 hours
Total weight of Kajjali-315 gms
Weight of Rasasindoora obtained-230 gms
Talastha (at bottom) residue-no residue

Observations of the final product (Rasasindura)

- a) Appearance– Solid lustrous conical mass,
- b) Color – Red black (shiny), when triturated in Khala (mortar), it became Sindoora color like rising sun.
- c) Odor– odorless
- d) Touch – Externally smooth and internal surface rough, after trituration it became smooth
- e) Taste – tasteless

Pariksha of Kajjali and Rasasindoora- (Table 5)

Bakuchibeej Shodhana

The covers over beej (seed) get separated and float over Gomutra (cow urine). On next day, the color of Gomutra (cow urine) turned dark.

Preparation of Kushthanashana Rasa

Consistency- rough powder
Color - blakish brown color
Odor - mild gomutragandhi (like cow urine)
Taste- Tikta (bitter)

Table 1: Observations during trituration of Parada (Mercury) with Sudha (Lime)

Time since started trituration	Observations
4 hours	Parada (Mercury) started disintegrating into small globules
8 hours	mixture of Sudha (Lime) turned to light grey color, Parada (Mercury) seen at the bottom of Khalva Yantra (Mortar and pestle)
12 hours	small globules of Parada (Mercury) start spilling out side of Khalva Yantra (Mortar and pestle)
18 hours	Parada (Mercury) seen at the bottom of Khalva Yantra (Mortar and pestle), grey color sudha (Lime) seen
36 hours	Sudha (Lime) turned to dark grey color, no free Parada (Mercury) globules seen in the mixture

Table 2: Observations during trituration of Parada (Mercury) with Lashuna kalka (paste of Garlic) and Saindhava (Rock salt)

Time of Trituration	Observations
2 hours	Parada (Mercury) started disintegrating into small globules
4 hours	Lashuna kalka (Garlic paste) turned to light grey color
8 hours	Grayish paste formed
12 hours	Grayish black colored paste formed, Small globules of Parada (Mercury) seen
36 hours	Paste turned into black color and Parada (Mercury) completely mixed with the paste.

Table 3: Observations during Kajjali Nirmana (Preparation of Kajjali)

Time of trituration	Observations
1 hour	mixture became greenish black in color
2 hours	the mixture turned to light grey color
7 hours	mixture turned to black color, but chandrika (crystal) observed
12 hours	Chandrika observed
20 hours	Mixture became Shlakshna, Sookshma. But still chandrika (crystal) was observed.
36 hours	Entire powder became fine, black, smooth, lusterless and Kajjalabhava (like corrylium).

Table 4: Temperature time and Observations during procedure of Rasasindoora

Date	Time	Temperature Reading	Observations
16/5/15	11.00am	29°C	Heat started
16/5/15	11.30am	100°C	-
16/5/15	12.00pm	200°C	Mild Gandhaka (Sulfur)smell, mild whitish fumes started
16/5/15	12.45pm	245°C	Strong pungent smell
16/5/15	1.30pm	248°C	Yellowish fumes inside bottle
16/5/15	2.00pm	273°C	Mild yellowish fumes coming out from bottle, Kajjali sticks to Shalaka (rod)
16/5/15	2.30pm	270°C	Yellowish fumes
16/5/15	3.30pm	280°C	Yellowish fumes
16/5/15	4.30pm	290°C	Yellowish fumes, Kajjali melted completely
16/5/15	5.00pm	300°C	Madhyamagni (moderate heat) started, yellowish fumes increased.
16/5/15	5.30pm	350°C	Yellowish fumes, greenish yellow color liquid seen
16/5/15	6.00pm	400°C	Dense yellowish fumes
16/5/15	6.30pm	406°C	Dense yellowish fumes
16/5/15	7.00pm	400°C	Profuse yellowish fumes, brownish color bottom seen
16/5/15	8.00pm	450°C	Yellowish fumes
16/5/15	8.30pm	452°C	Yellowish fumes
16/5/15	9.00pm	460°C	Dark brownish color bottom seen, Yellowish fumes reduced
16/5/15	10.00pm	472°C	Yellowish fumes reduced
16/5/15	11.30pm	490°C	Yellowish fumes stopped, bluish flame appeared
17/5/15	12.00am	500°C	Bluish flame, Dark brownish bottom seen
17/5/15	12.30am	510°C	Bluish flame increased
17/5/15	1.00am	520°C	Bluish flame decreased
17/5/15	1.30am	540°C	Copper coin test positive, Red hot bottom was seen Mukhamudrana (corking) was done
17/5/15	2.00am	560°C	Tivragni (high heat) started
17/5/15	3.00am	580°C	Tivragni (high heat)
17/5/15	5.00am	650°C	Tivragni (high heat)
17/5/15	8.15am	700°C	Agni (heat) stopped, kept for swangshitikarana (self cooling)

Table 5: Observations during Pariksha of Kajjali and Rasasindoora

Pariksha	Observations
Varitaratva	80% of particles float over surface of water
Rekhapurnatva	Particles observed in the furrow of the fingers
Mrudutva and Shlakshnatva	Softness and Smoothness observed
Nishchandravta(for Kajjali)	No shining particles seen over the fingers

Table 6: Parada Shodhan (purification of Mercury) Process

	Weight before Shodhana	weight after shodhana in Sudha	weight after shodhana in Rasonakalka & Saindhav	Total loss of weight	Duration
Parada	1000 gm	800 gm	700 gm	300 gm	90 days

Table 7: Gandhaka Shodhana (purification of Sulfur) Process

	weight before shodhana	weight after 1 st shodhana	weight after 2 nd shodhana	weight after 3 rd shodhana	Total loss of weight	Duration
Gandhaka	1000 gm	970 gm	950 gm	930 gm	70 gm	7 days

Table 8: Bakuchibeej Shodhana (Purification of Seeds of Psoralea corylifolia) Process

	weight before Shodhana	weight after Shodhana	Total loss of weight	Duration
Bakuchibeej	500 gm	450 gm	50 gm	15 days

Table 9: Kajjali Nirman (preparation) process

Ingredients		weight after procedure	Total loss of weight
Parada	Gandhaka		
700 gm	700 gm	1300 gm	100 gm

Table 10: Process of Bhavana (levigation) to Kajjali

Kajjali	weight before bhavana	weight after bhavana	Duration
	300 gm	315 gm	4 day

Table 11: Rasasindoora Nirmana process

Total weight of Kajjali	Total duration of heat			Duration of Swangshitakarana	Total weight of Rasasindoor obtained	Talastha residue
	Mandagni	Madhyamagni	Tivragni			
315 gm	6 hours	8 hours	6hours	10 hours	230 gm	No

Table 12: Kushthanashana Rasa

Ingredients	Weight	Duration
Rasasindoora	1 gm	3 hours
Gandhaka	32 gm	
Chitrakmoolchurna	36 gm	
Marichchurna	96 gm	
Bakuchibeejchurna	192 gm	
Total	357 gm	



Mardana of Parada in Sudha



Mardana in Rason kalk & Saindhava



Shuddha Parada

Figure 1: Purification of Parada (Mercury)



Melted Gandhaka



Dhalana Process in Godugdha



Shuddha Gandhaka

Figure 2: Purification of Gandhaka (Sulfur)



Parada & Gandhaka- Mardana



Kajjali

Figure 3: Kajjali preparation



Kupisthapana



Sulfur Fumes



Shalakasanchalana



Red hot bottom



Kanthashta Rasasindoora



Figure 4: Rasasindoora preparation



Figure 5: Kushthanashana Rasa preparation

RESULTS & DISCUSSION

The results of Pharmaceutical procedure are given in table 6 to 12. The present study was undertaken to carry out a shodhana (purification) of Parada (Mercury), Gandhaka (Sulphur) and Bakuchi beej (*Psoralea corylifolia*), preparation Kajjali, bhavana (levigation) to Kajjali, preparation of Rasasindoora.

Parada shodhana (purification of Mercury) -

Shodhana (purification) of Parada (Mercury) was carried out according to reference of R.T. 5/27-29. Sudha (lime), Saindhava (Rock salt), and Lasunkalka (Garlic paste) were used for shodhan (purification). After Shodhana (purification), there was 700 gm of Parada (Mercury) was obtained from 1000 gm. The total loss of weight was 300 gm. The weight loss seen because

of spilling of Parada (Mercury) during Mardana (trituration) process, impurities removed during Shodhana (purification), small globules of Parada (Mercury) was washed out with water.

- 1) Shodhana (Purification) due to trituration- the heat produced during mardan (trituration) process would seize the heat irrisistant impurities.
- 2) Sudha (lime) is alkaline in nature. So it may absorb alkali soluble impurities.
- 3) Saindhav (Rock salt) has Kshariya property, which dissociate the molecules of Parada (Mercury) and absorb watery and oily soluble impurities.
- 4) Garlic contains organic Sulfur and it is antidote for heavy metal poisoning.
- 5) Action of crushed Garlic-The fresh bulb contains alliin, alliin and volatile oils. When the garlic is crushed, alliin, the first organosulfur compound found in nature converted to alliin in 10 seconds. Alliin is unstable and converts readily into mono, di, tri, and poly sulphides, sulfur oxide and other compounds such as ajoene, which is a secondary degradation product of alliin is the most active compound responsible for any multiple bonding along with mercury.⁹

Gandhaka Shodhana (purification of Sulfur)

- 1) Gandhaka shodhan (purification of Sulfur) was done 3 times in Goghrita (cow ghee) and Godugdha (cow milk) as per reference of R.T.8/9-12.
- 2) After Shodhana (purification), there was 930 gm of Gandhaka (Sulfur) obtained from 1000 kg. The weight loss occurred because of removal of impurities during Shodhana (purification) and washing with water.
- 3) Gandhaka (Sulfur) contains following two types of mala-Shilachurna, Vishadravya (Somal, Hartal, Manashila)¹⁰
- 4) Ghrita (ghee) possesses Vishaghna property. So while melting Gandhaka (Sulfur) the Visha doshas are pacified by Ghrita (ghee) and some in Godugdha (cow milk) and their layer is seen over ghrita (ghee), dugdha (milk).
- 5) The Godugdha (cow milk) and Goghrita (cow ghee) reduce the Tikshna, Ushna guna of Gandhaka (Sulphur).¹¹

Kajjali Nirmana (preparation of Kajjali)

Kajjali was prepared according to reference of Rasaratnasamuchchaya 8/5. Presence of Chandrika (crystal) in Kajjali indicates free globules of Mercury. So trituration was done till chandrika (crystal) disappeared.

Rasasindoor Nirmana (preparation)

- 1) Rasasindoor was prepared by Kupipakva method by taking 315 gm Kajjali according to reference of R.T. 6/162-168.
- 2) Specially designed, Modified Portable Valukayantra was prepared for Rasasindoor nirmana (preparation).
- 3) Bhavana (levigation) of Vatankura Swarasa was given to Samaguna Gandhaka Kajjali.
- 4) Kajjali was triturated 1 hour before Kupibharana (feeling of bottle) to avoid moisture.
- 5) Total 20 hours heat was given for preparation. 24 hours was taken for Swangshitikarana (self cooling).
- 6) Final product obtained was 230 gm and there was no residual product.
- 7) The color of Rasasindoor was blakish red and after mardan (trituration) it turns to Sindoor color.

Bakuchibeej Shodhana (Purification of Seeds of *Psoralea corylifolia*) – It was done by Nimajjana (dipping) method according to reference of P.V.Sharma part 2. It took 15 days for bakuchi shodhana.

Preparation of Kushthanashana Rasa-

Kushthanashana Rasa is a Kharaliya Rasayana, in which Rasasindoor is a Kupipakva Rasayana as an ingredient. All the ingredients weighted accurately and mixed one by one in Kharala (mortar) and triturated.

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