

PHARMACEUTICAL STUDY OF TAMRESHWAR RASA KUPIPAKWA RASAYAN

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ABSTRACT

Rasashastra is also a actually ancient text and it's the result of further than thousand times of research. In traditional system of medicine, the use of Rasashastra and Rasaushadhi are the revolutionary development. generally, Rasashastra deals in metallic and herbo mineral drugs with colored kalpanas including Kupipakwa Rasayana. While Rasaushadhi are mentioned in various rasa texts in terms of their effectiveness and it's in practice since ancient times Rasaushadhi are very effective in many aspects like long lasting effects, simple palatability, rapid onset of action, small dose and having better efficacy to cure the complex diseases (Asadhya vyadhis). There is no needing of evaluation of patient testing, desh, kal and dosha with the utilization of rasaushadhi. Kupipakwa Rasayana Kalpana is additionally referred to as Sindhura Kalpana. It is made from four words that's kupi- glass bottle, pakwa- heating or paka, rasa- parada, aayana- sthan. Kupipakwa method is a special procedure in which kajjali main ingredients. The role of temperature is very important to get the desired and beneficial effect in the final product Many observations and precautions are involved within the process of Kupipakwa Rasayana. In this, mercury (Hg) known as parada has been widely used and other drug is sulphur known as Gandhaka has been also used frequently. There are several chemical changes are seen within the finished product. Now a day, with Parada and Gandhaka there are chemical reactivity are well known. **Objective:** Preparation of Tamraeshwar Rasa as per classical reference.^[1] **Materials and Methods:** The Kajjali (fine black lustreless powder) of Tamreshwar Rasa in Kacha Kupi (glass bottle) was given heat with Kramagni (graded heat pattern) in EMF for 36hrs. Melting of Kajjali (Black lustreless mercurial compound) was observed at around 260 °C, whereas the flame started at 357 °C. Maximum temperature required for production was 650 °C. Final yield of 32% was observed in preparation of Tamreshwar Rasa. **Conclusion:** Tamreshwar Rasa is Sagandha, Bahirdhuma, Kantastha Kupipakwa^[12] Rasayana (Sublimated compound formed in glass bottle). It are often prepared in 36 hours following classical guidelines.

KEYWORDS: Tamreshwar Rasa, Kupipakwa Rasayana, Parada, Gandhaka, Tamra.

INTRODUCTION

In Present study, Tamreshwar Rasa was prepared as per reference of Rasarajsundara. Parada, Gandhaka, Tamra patra was procured from certified seller. While Rasona

was collected from local market. Pharamaceutical manufacturing of Tamreshwar Rasa was carried out at Dept of Rasashastra & Bhaishajyakalpana, Shri ayurved mahavidyalaya, Nagpur.

Ingredients of Tamreshwar Rasa with their Ratios

Sr No.	Ingredients	English name	Proportion	Quantity
1.	Suddha Parada ^[1]	Mercury	1	50gm
2.	Suddha Gandhaka ^[2]	Sulphur	1	50gm
3.	Suddha Tamra Patra ^[3]	Copper	1	50gm

Equipments- Weighing balance, VEMF, iron rod, cotton cloth, Kanchkupi, torch.

Circumference specifications of kacha kupi

Bottle	Before Kapadmiti	After 7 layers of Kapadmiti
Height	28 cm	28.5cm
Mouth	9 cm	15cm
Neck	14cm	18cm

Bottom	24.5cm	27cm
Weight	410gm	540gm

Equal quantity of *Suddha Parad*^[6] (Hg) & *Suddha Tamra*^[7] (Cu) taken. Firstly *Suddha Tamra*^[8] was mixed into mercury & triturated fastly, forcefully. Amalgamation taken place of *Parad* & *Tamra*. After properly mixing of *Parad* & mixed in equal quantity of *Suddha Gandhak* & were added respectively, homogenous mixture was prepared by continuous trituration. *Kajjali*^[3] was prepared Clean *Kancha kupi* (green coloured narrow mouth) vertical glass bottle, cylindrical body, base & conical neck. Cotton cloth pieces were wrapped on *kupi* for 7 times uniformly & consecutively applied only after complete drying of former layer. The *Kajjali* was filled upto 2/3rd in layered *kachkupi*. (green coloured glass bottle) & Properly adjusted in VEMF at three different temperature. i.e *Mrudu agni*, *Madhyam agni* & *Tivara agni* (high heat) for certain time period.^[9] During preparation of *Tamreshwar*, variation in heating of temp. were observed. to verify the melting & boiling stage of *Kajjali*, *Shita Shalaka* (Cold iron rod) was inserted into

neck of *kupi* as & when necessary *tapta shalka* (Red hot iron rod) was inserted into neck of *kupi* as & when necessary to clear deposited *Gandhak* inside the *kupi*. After 30hrs of active heating with max. temperature of 650°C VEMF was stopped & *kupi* was kept for self cooling. Once *kupi* was cool, it had been taken out & cleaned carefully. *Kupi* was broken middle so on separate the lower & upper halves. For this a kerosene dipped thread was wrapped on *kupi* & ignited then after the hearth extinguished, wet cloth wrapped immediately around *kupi*. After breaking of *kupi Tamreshwar Rasa* deposited at *Kanthastha* (Neck of glass bottle) & *Tamra bhasam* was procured by careful scrapping & gentle tapping. The product was scrapped collected & stored in air tight container. During the whole process, care was taken to avoid mixing of glass particles & product. Above mentioned method was repeated for successive batches.

Organoleptic characteristics of Raw materials & *Kajjali*

Ingredients	Colour	Odour	Touch
<i>Suddha Parad</i>	Silvery	Characteristic	Smooth
<i>Suddha Gandhaka</i>	Light yellow	Characteristic	Slight rough
<i>Suddha Tamra</i>	Reddish	Characteristic	Smooth

Observations during preparation of *Kajjali*

- Firstly *Suddha Tamra* was mixed with *Suddha Parad*, trituration was done forcefully.
- *Pishti* formed of *Suddha Tamra* & *Suddha Parad*, slightly reddish colour of *Pishti* with shiny appearance & trituration continued
- Colour of *pishti* changes to slight green colour.
- *Suddha Gandhak* was weighed, powdered & mixed well with *pishti* & trituration done slight brown colour *kajjali* formed.^[10]
- Trituration continued till colour *kajjali* turned to black, smooth, fine texture.^[11]

Photographs during overall *Tamreshwar rasa kupipakwa*



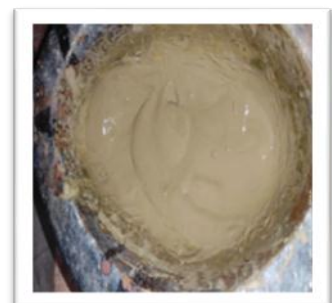
Suddha Parad



Suddha Tamra



Suddha Gandhaka



Kajjali Bhavana with Nimbu Swarasa



Kupi bharan with kajjali



Mrudu agni with EMF



Teevaragni in EMF



Kupi bhedhan



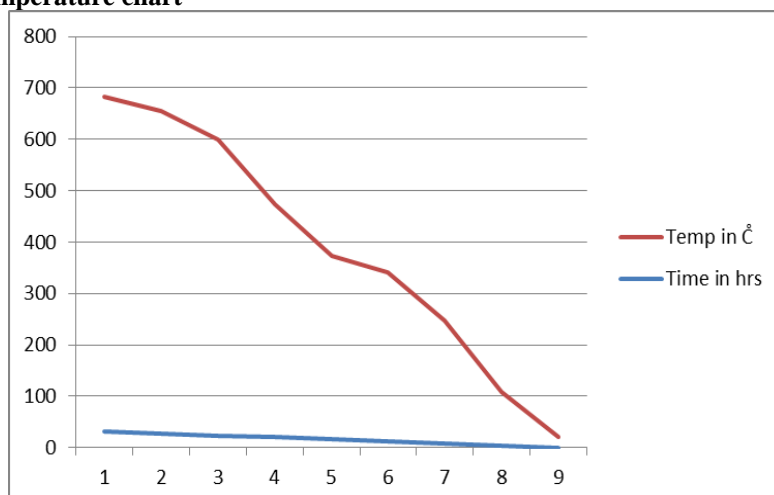
Kanthstha Tamreshwar rasa



Kanthstha and Talastha product

Observations during different stages of *Tamreshwar Rasa* preparation

Time in hr. min	Temp In °C	Observations
0	22	<i>Kupi Sthapana</i> , EMF switch on.
1	68	No fumes inside <i>kupi</i> , bottom of <i>Kupi</i> can be seen clearly with torch.
2	82	Slight white fumes were seen inside <i>kupi</i>
4	105	Thick dense whitish fumes inside the <i>kupi</i> .
6	165	The fumes became dense, can't see the bottom of <i>kupi</i> with torch.
7	209	Still dense whitish fumes found inside <i>Kupi</i> .
8	240	Slight yellow fumes observed.
9	260	<i>Sheeta shalaka</i> was inserted inside <i>Kupi</i> . The <i>Kajjali</i> was little bit sticky in consistency. Slight yellowish flame, Bluish flame started.
12	330	<i>Sheeta shalaka</i> was inserted, <i>Kajjali</i> was slight sticky.
15	380	Dense yellow fumes observed. Bottom of <i>kupi</i> not visible. <i>Kajjali</i> is in molten state.
17	357	Dense yellow fumes of sulphur continue, Bluish flame seen.
18	400	Dense <i>Gandhaka</i> fumes found. Bottom cannot be seen with torch.
20	454	<i>Sheeta shalaka</i> inserted –melting of <i>Kajjali</i> ascertained.
22	460	Density of yellow fumes reduced gradually.
23	483	<i>Sheeta shalaka</i> inserted – <i>Kajjali</i> started boiling.
24	550	Hot <i>shalaka</i> was inserted to clear the block. Whitish fumes observed with Sulphur smell.
24:30	575	Hot <i>shalaka</i> was inserted 8 more times to clear the block. Bluish flame of ½ feet height at the mouth of <i>kupi</i> was present. Block was cleared off. Dancing of Mercury was observed.
25	600	Hot <i>shalaka</i> was inserted 2 times. Bluish flame reduced. <i>Sheeta shalaka</i> test was positive. <i>Suryodaya Lakshana</i> clearly seen.
26	600	Copper coin test was done. It was positive. i.e. copper coin was kept over mouth of the bottle, the surface of the coin turned into greyish white in colour. No flames Observed. Corking done with the help of <i>Multani miti</i> smeared cloth.
28	628	<i>Teevragni</i> started. Acceleration of EMF increased.
30	637	Same as above.
31	640	<i>Teevragni</i> continued.
32	650	Heating continued till the duration of <i>Teevragni</i>

Tamreshwar Rasa Temperature chart**Showing result of preparation of Tamreshwar Rasa**

<i>Tamreshwar Kajjali</i>	150gms
<i>Tamreshwar Rasa</i>	48gms
<i>Tamreshwar Rasa (Talastha)</i>	68gms
Loss	34gms
Yield	2%
Colour	Vermilion
Total Duration	32hrs

Analytical parameters of Tamreshwar Rasa

Sr.No	Test	Remarks
1	Loss on drying at 105 °C	0.60
2	Water soluble ash	1.861
3	p ^H	6.40
4	Total ash	1.96
5	Acid insoluble ash	0.51

CONCLUSION

The Present study was aimed at providing a guidelines to simplify procedure & standard temperature maintainence in preparation of *Tamreshwar Rasa*. The study gives a defined sequence of process involved formation of *Tamreshwar Rasa* by which researcher can perform the drug preparation scientifically to obtained expected output. There by we can say *Tamreshwar Rasa* has been standardised in terms of time & temp for 150gm *kajjali*.

Mrudu - Room temp to 200 °C.

Madhyam - 200 - 450 °C

Tivra - 450 - 650 °C

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