TOPIC 2.5
PRAMANIKARANA PARIBHASHA

Dr.Priyanka Sharma
Associate Professor
Dept. of RS & BK

SR.No	Course learning Outcomes (CO)	programme outcomes.
CO1	Explain the term Paribhasha and its importance in Ayurvediya Aushadhi Nirmana.	PO1,PO5,PO7
CO1	Discribe the terms Aushadha, Bheshaja, Kalpana, Kashaya, Kashaya yoni, Samskara- based on their word derivations	PO1,PO5,PO7
CO1	Enlist sequentially - names of all drugs classified in the varga(group). Recite shlokas of Maharasa, Uprasa , Sadharana Rasa Varga from Rasaratnasamuchchaya.	PO1,PO5,PO7
CO1	Enlist and discuss Sandigdha, Krutrima, Pratinidhi and Anupalabdha dravya.	PO1,PO5,PO7
CO1,CO2	Discribe the definition of the term Shodhana. Explain with examples different techniques used for the procedures of Shodhana.	PO1,PO5,PO7
CO1	Explain the term Marana and describe its types with examples	PO1,PO5,PO7
CO1	Enlist all relevent prakriya paribhasha of Amrutikarana, Lohitikarana,Sattvapatana, druti and discuss with examples	PO1,PO5,PO7
CO1,CO2	Recite sequentially names of Parada Ashta samskara. Explain the terms Jarana Murchchhana and cite types with examples. Compare Jarana and Murchchhana.	PO1,PO5,PO7
CO1	Explain the term Paribhasha and its importance in Ayurvediya Aushadhi Nirmana.	PO1,PO5,PO7
CO1	Discribe the terms Aushadha, Bheshaja, Kalpana, Kashaya, Kashaya yoni, Samskara- based on their word derivations	PO1,PO5,PO7
CO1	Enlist sequentially - names of all drugs classified in the varga(group). Recite shlokas of Maharasa, Uprasa , Sadharana Rasa Varga from Rasaratnasamuchchaya.	PO1,PO5,PO7
CO1	Enlist and discuss Sandigdha, Krutrima, Pratinidhi and Anupalabdha dravya.	PO1,PO5,PO7
CO1,CO2	Discribe the definition of the term Shodhana. Explain with examples different techniques used for the procedures of Shodhana.	PO1,PO5,PO7
CO1	Identify names of Parada Bandhas	PO1,PO5,PO7
CO1,CO2,CO 5	Describe Grahyagrahya parameters used for selection of Rasadravyas.	PO1,PO3,PO4,PO5, PO6,PO7,PO8
CO1,CO2,CO 5,CO6	Illustrate all Bhasma pariksha as per classical description.	PO1,PO3,PO4,PO5, PO6,PO7,PO8,PO9
CO1,CO2,CO 5	Define the word Siddhilakshani.Recite examples of classical siddhilakshani. Interpret its rationality	PO1,PO3,PO4,PO5, PO6,PO7,PO8
CO1	Recognise and discuss Dhanvantari Bhaga and Rudra bhaga	PO1,PO5,PO7
CO1	Explain importance of Mana-paribhasha and classical types of Mana. Recall Charts of Mana .	PO1,PO5,PO7
CO1,CO2	Categorize parameters of Drug Standardization and develop a checklist for assessment of quality of rasadravyas	PO1,PO5,PO7
CO2	Explain Value of selection of genuine raw material	PO1,PO5,PO7
CO2,CO3	Explain importance of ethical practices for drug processing(Shodhan, Marana)	PO1,PO3,PO4,PO5, PO6,PO7,PO8
CO2,CO3	Discuss and justify importance of Bhasma Pariksha	PO1,PO3,PO4,PO5, PO6,PO7,PO8
CO2,CO3	Explain nalue of keen and accurate application of weights and measures in Ayurvediya Aushadhi nirmana	PO1,PO3,PO4,PO5, PO6,PO7,PO8

CONTENTS

BHASMA PARIKSHA

BHASMA

मारण

शोधितं लौहधात्वादीन् विमर्द्य स्वरसादिभिः ।
अग्निसंयोगतो भस्मीकरणं मारणं स्मृतम् ।।
(परिभाषा प्रबन्ध)

Marana is the process by which metals and minerals are levigated with liquids(Swarasa etc.) and when dry reduced to bhasma by heat.

ykgkuk ekj.k J"B lo"kk jlHkLeukA
efyfHke/;e "B x/kdkfnfHk%AA
vfjykgu ykgL; ekj.k nx.kçneAA j- j- l-

jlkfnn0;ikdkuk çek.kKkid iVeA
u"Vk U;ukf/kd% ikd% lqikd fgrek"k/keAA j- p-

Puta - Incineration

Powder of a substance obtained by calcination is called Bhasma.

In this section, it is applied to the metals, minerals and animal products which are, by special processes, calcined in closed crucibles in pits and with cow dung cakes (Puta). (A.F.I Part-1)

BHASMA ……….

- The starter material undergoes an elaborate process of purification and this process is followed by the reaction phase, which involves incorporation of some other minerals & or herbal extract. Then material in pellet form is incinerated in a furnace.
- The end product is expected to be a nontoxic material.

BHASMA IS……………

- Bhasma kalpna is the phenomenon of conversion of metals, minerals into **suitable, acceptable, absorbable** and **assimilable** herbo-mineral preparation.

BHASMA PARIKSHA

CLASSICAL PARAMETERS

- Organoleptic test
- Varna
- Aksharatwa
- Amla-pariksha
- Apunarbhava
- Gatarasatva
- Niruttha
- Nirdhumatwam

- Aavami
- Anjnabha
- Dantagre-kach-kach-abhava
- Nischandrtva
- Rekhapurnatva
- Slakshanatva
- Varitar
- Unnama

Necessity of Bhasma pariksha

- Ayurvedic medicine are serving the needs of ailing humanity since many centuries, particularly bhasma have good preventive, curative, and rejuvenating potential.
- Bhasma are safe when prepared and used properly.

- Use of bhasma when prepared by improper methods, can prove injurious to health.
- The bhasma pareeksha is having high significance due to the ill effect of improper bhasma.

So Bhasma pariksha is necessary.

End point of Puta (incineration) process

Rekhapoornatva: Finger ridge filling test: Particle size

Physical Tests

Varitartva: Water floating test :

Role of Surface tension: Small objects will "float" on the surface of a fluid, as long as the object cannot break through and separate the top layer of water molecules. When an object is on the surface of the fluid, the surface under tension will behave like an elastic membrane.

Chemical Tests

Apunarbhavatva: Irrecoverability

Rekhapoornatva: Finger ridge filling test:

Particle size - Nanoparticle?

तान्यञ्जनाभानि सूक्ष्मचूर्णानि कारयेत्।

Caraka Samhita

सूक्ष्मचूर्णानि कारयेद्धनतान्तवपरिस्राविताानि

Susruta Samhita

Organoleptic Test

- Shabda
- Sparsha
- Rupa
- Rasa
- Gandha

Colour of the Bhasma

Sr. No.	Metal	English name	Color of bhasma
1.	Swarna	Gold	Champak
2.	Tara	Silver	Krishna (black)
3.	Tamra	Cupper	Krishna (black)
4.	Kamsya	Bronze	Dhusra(ash)
5.	Naga	Lead	Paravata (pigeon color)
6.	Vanga	Tin	Shubhra(white)
7.	Loha	Iron	Jambu phala (black berry)
8.	Abhraka	Mica	Isthika (brick red)

Bhasma	Colour
Hartaal	White
Manhashila & Hartaala Satva	White
Makshika	Red (Arun prabha)
Kharpar	Yellow/Yellowish/White/pinkish
Tutha	White/Blue
Kashish	Blakish red
Shilajatu	Ash-blakish

Sudha - Varga Bhasma

Bhasm	Colour
Praval	White
Mukta	White
Sankh	White
Kapard	White
Mukta sukti	White

Precious stone - Bhasma

Bhasma	Colour
Hiraka	White
Vadurya	Yellowish white
Gomeda	White
Indranila	White
Markata	White

AKSHARATWA

- It is considered as one of the quality of Sankh bhasma and other calcium carbonate containing compound.

- It suggests chemical character of bhasma that **lack of alkaline taste.**

AMLA-PARIKSHA

(ACID SOLUBLE TEST)

Amla pariksha is one of the traditional methods for quality assurance of metallic Bhasma, e.g. Tamra (Cu) Bhasma.

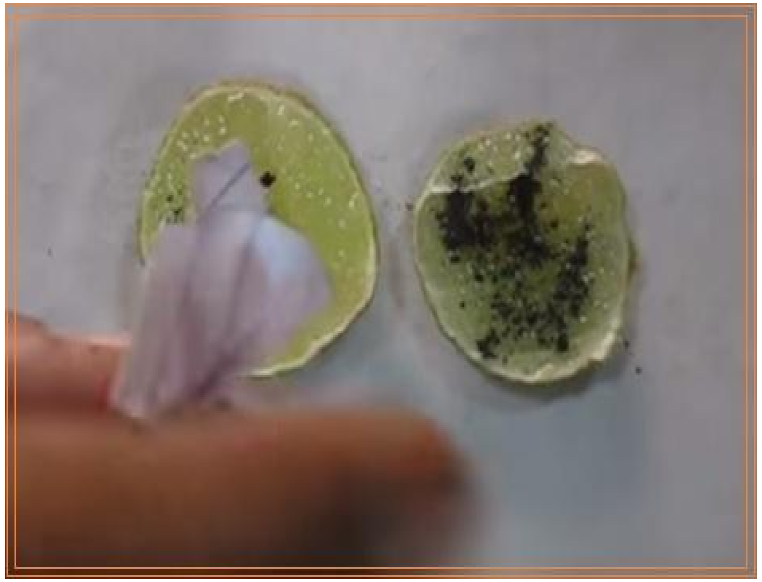
Performed By

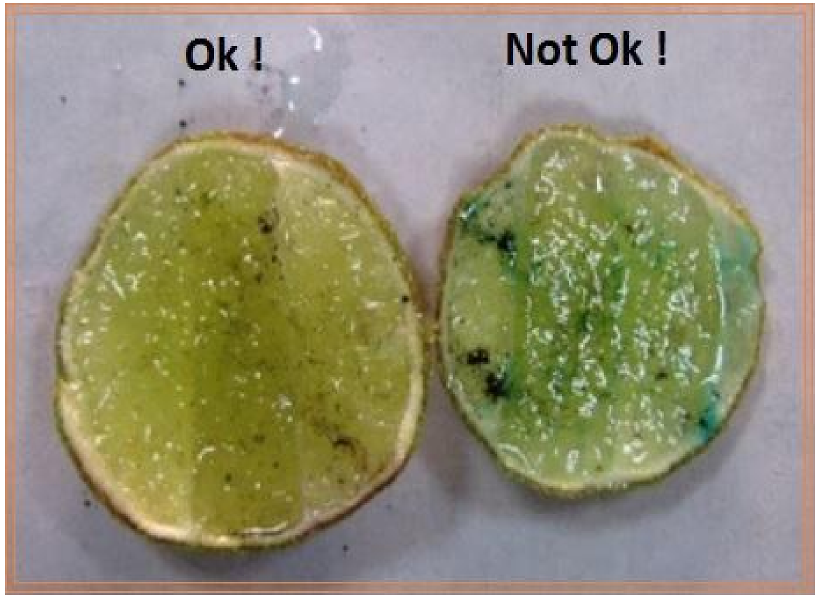
- LEMON
- CURD

Procedure……..

- Take two slices of lemon and sprinkle samples of Tamra Bhasma on it.
- Wait for ten minutes.
- Wash away the Bhasma and observe the color.
- If it does not give green coloration then the Bhasma is good. If it gives green color with sour things, the Bhasma is not edible and requires further processing.

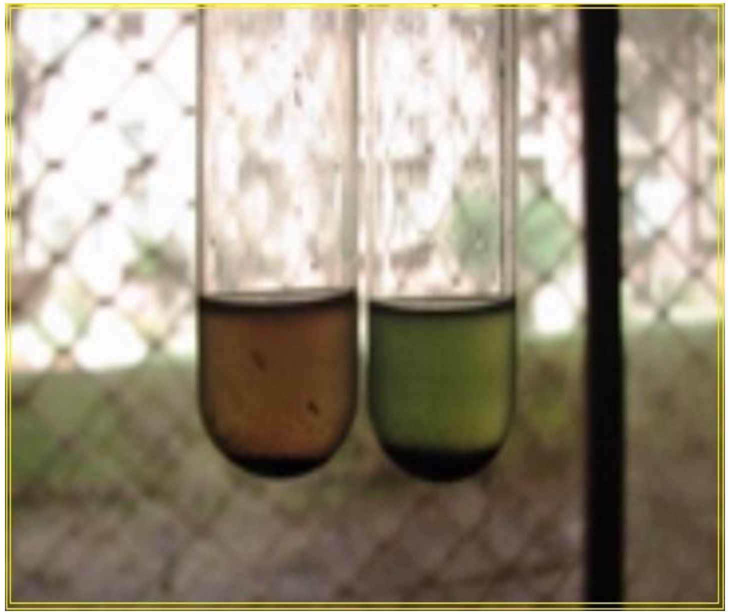

Take two slices of lemon and sprinkle samples of *Tamra Bhasma* on it.




Ok !
Not Ok !

Lemon test-

- Fresh juice of lemon is kept in a test tube. Another test tube is kept with lemon juice of comparing.
- A little amount of bhasma is put in the test tube. It is left for few hours. There should not be any blue or greenish coloration.




(Left) Ok !
(Right) Not Ok !

Curd test-

- Little amount of curd is taken in petridish and Tamra bhasma spread on it.

- It is left for 24 hours. There should not be any bluish or greenish appearance in curd.

Amla Pariksha recommended for-

- Tamra Bhasma
- Tuttha Bhasma
- Suwarna makshika Bhasma

APUNARBHAVA

(Incapability to regain original form)

- This test for metallic / mineral bhasma only.
- For that, the bhasma is to be mixed with equal quantity of 'mitra panchaka' (gunja, guggulu, ghrita, madhu, tankana) and subjected to same puta at that bhasma is prepared (i.e. intensity of temperature should be same in both incineration process and apunarbhavatva test).

- On self cooling the product is to be observed.
- If any gross particles formed, show presence of free metal in bhasma and cannot be considered it as proper formation.
- In case of genuine sample of bhasma, no change in bhasma is possible.

It indicates that the incineration process of Bhasma is proper.

Nihsvadu/Gata Rasatvam

- After the completion of marana process, generally the bhasma are without any taste.
- To test this, a portion of bhasma should be put on the tip of tongue to detect its taste if any.
- In the case of Tamra (Cu) bhasma this test is most important as the Cu bhasma having as **astringent (kashaya)** taste, cannot be considered suitable for clinical use, because such bhasma if used internally is likely to produce nausea, vomiting vertigo and burning sensation.

NIRUTTHA

- This test is also meant for detection of the regaining character of metallic / mineral bhasma.
- 5 gm of Bhasma and 1 gm of pure Silver were taken in musha & subjected to heat.
- It is to be heated until silver melts completely.
- Let it be cooled down.

- Weight the silver and observe whether there is increase in weight of silver or not.
- If weight of silver remains as it is, it indicates the inability of bhasma to convert into metallic form.
- This is one of the reliable test for metallic bhasma.

- Niruttha /Apunarbhava is the condition of bhasma from which it cannot be reverted to its metallic form even if mixed with mitrapanchka and heated to the temperature at which the bhasma is prepared.

NIRDHOOMATWA

- This is also not a common test applicable to all bhasma.
- This is only for drugs containing As & Hg.

Procedure-

Some portion of a bhasma is put on the fire to see whether any fume is coming out. If there is fume coming out, the marana is not complete and some more puta are needed.

AAWAMI

(non-vomiting)

- Very little amount of bhasma is kept on tip of the tongue.
- It should not cause nausea.
- It indicate that bhasma is properly prepared.
- Its recmonded for Cu & Suwarn makshika bhasma.

ANJANABHA

(ANJANASADRASA SUKSMATWA)

- This also indicates the fineness of the Bhasma.
- The other two tests (varitara & rekhapurnatwa) can not show whether all the particles of the Bhasma reached the required state of fineness.
- Hence ancient Acharya have developed this delicate test, in which some portion of a Bhasma is used in the eyes as anjana, which are most sensitive and thus it would be able to detect if a single particle of a bhasma is above required size.

NISCANDRATWA

(Lusterlessness)

- This is not a common test applicable to all Bhasma.
- It is prescribed only for the Bhasma of certain drugs like Gold, Abhraka etc.

Procedure-

- For this test a portion of the Bhasma should be rubbed on the palm by a finger and the rubbed portion should be examined in sun rays.
- If any shining particle is seen, the Bhasma cannot be Niscandra, and should be subjected to further puta to make it completely lusterles

- Probably luster is due to presence of free metal particle in bhasma.
- Lusterlessness is due to conversion of free metal particle into its compound e.g. Fe- Fe_2O_3, Fe_2S_3, Cu- Cu_2S, Sn- SnO_2.
- But in case of Suwarna vanga presence of shining is must- golden yellow color is mentioned in our classics.

This test again indicates the fineness of a Bhasma.

Procedure-

- Bhasma powder is rubbed in between the thumb and the fingers, test is known as rekhapurnatwa. When the particles of the Bhasma attain such a state that it could enter the papillary ridges of the fingers it is presumed that it may also be absorbed in to the system and then the process of marana may be considered complete.

- In other way, the test indicates the particle size of the Bhasma, which is the fundamental aspect for the therapeutic efficacy.

SLAKSNATWA

- A Bhasma should be Mrudu and Slaksna to the touch.
- The softness and smoothness of a bhasma is also due to fineness and if the bhasma does not acquire the required stage of fineness, it can not be soft and smooth, so it need more puta.

(Floatable over water)

- Jalaplava is the synonym used for this test.
- It should be present in all the prepared bhasma.
- The meaning of this term is to float over the surface of water.
- If a Bhasma floats over the surface of water, it can be regarded as standard one.

Procedure-

- Take a glass or beaker full of water and allow it to be free from currents. Now sprinkle the Bhasma powder slowly over the water surface and see whether all the particles of powder are floating over water surface or some of them sink into the water and settle at the bottom.
- If the entire particles float, then the Bhasma is considered to be best quality, otherwise when some particles go down some puta are to be given.

- Here the surface tension of the water plays important roles i.e. the particles of the Bhasma have become so fine that it cannot break the surface tension of the water.
- If the Bhasma attains such a stage, then recommended for internal use.

This test is for further confirmation of Varitara Test.

- A paddy grain was placed gently over floating Bhasma.
- If paddy grain floated clearly over the layer of Bhasma,

  It indicates that the process of incineration is proper.
- This is reassessment test of the floating character of bhasma.

Dantagra-kach-kacha-Abhava

- The absence of grittiness on crushing in between teeth shows micro fineness of bhasma.
- Particles of bhasma should be of the size pollen grains of *Pandanus odortismus* (ketki rajah samnibham).

All the classical parameters have definite significance.

- Varitara & unnama test indicates lightness in comparison to water.
- Rekhapurnatva test also indicates micro fineness of bhasma.
- Nischandratva test indicates, specific metallic luster transforms into lusterless compound after incineration.

Apunarbhavatva test gives assurance about stability of bhasma. In this test, all ingredients of **Mitra Panchaka** act as a source of **carbon** on that temperature in which test is perform. **An unstable metallic compound** can be reduced to **metallic state** by carbon reduction process. But stable metallic compound does not change.

$$Fe_xR_y + C \rightarrow xFe + yR$$

Niruttha test also indicates stability and completion of marana procedure.

Silver (Ag) and bhasma are heated together, if weight of silver increases then bhasma is not properly formed.

RESEARCH ARTICLES

Namburi Phased Spot Test Analysis (Npst) of Rasasindura (Herbomineral Preparation)

Ayurveda

KEYWORDS : Rasasindura (red sulphide of mercury) and Namburi phased spot test

Dr. Veena B Kupati	PG Scholar, Department of Rasashashtra, KLEU, Shri BMK Ayurveda Mahavidyalaya, Belgaum, Karnataka.
Dr.P.G.Jadar	Professor, Department of Rasashashtra, KLEU, Shri BMK Ayurveda Mahavidyalaya, Belgaum, Karnataka.

ABSTRACT

Rasasindura (red sulphide of mercury) is a type of kupipakvarasayana (medicine prepared in bottle) and it is called as Red sulphide of mercury. Mainly used in the condition of Prameha (diabetes mellitus), Bhagandara (fistula), Rajayakshma (tuberculosis), Kushtha (leprocy), Pandu (anaemia), Gulma (extra growth) etc. The analysis of Rasasinura (red sulphide of mercury) was done by NPST (nambhuri phased spot test) to know the proper preparation of Rasasindura (red sulphide of mercury). The analysis was observed in three phases, from 0min to 72 hours and compared with standard protocol. The prepared Rasasindura (red sulphide of mercury) shows accurate results.

Preparation of paper and solution for NPST: 7, 8. 10% Potassium iodide paper preparation

Materials

- 10% Potassium iodide solution (10 gm of potassium iodide and 100ml of distilled water)
- Whatman's filter paper no.1

Procedure

Dipped a Whatman's filter paper in a 10% Potassium iodide solution and waited for 2min, then removed from solution and kept for drying in shade.

Solution preparation

Materials

- Rasasindura- 1 gm
- Aquaregia (Conc. HCL & Conc. Nitric acid, 3:1)

Procedure

Taken 1gm of Rasasindura (red sulphide of mercury) in centrifuge test tube and added 2ml of freshly prepared Aqua regia drop by drop and allowed to react for 30 min. The heat was given for a minute on a spirit lamp. By heating the solution, the interaction between the substance and reagent started with effervescence. Allowed them to react for 48 hours, in between test tube was shaken. After 48 hours the clear solution was taken and single drop was putted on 10% Potassium Iodide paper. The colour changes of the paper observed in 3 different phases.

1st Phase – 0 to 5min

2nd Phase –5 to 20 min

3rd Phase – 20 min too few hrs

RASASINDHURA

1st Phase

2nd Phase

3rd Phase

Phase	Observation
1st	Brick red solid spot with dark brown periphery was seen
2nd	Dark brown periphery was fades away slowly
3rd	Dark brown periphery which was fades away slowly with great extent

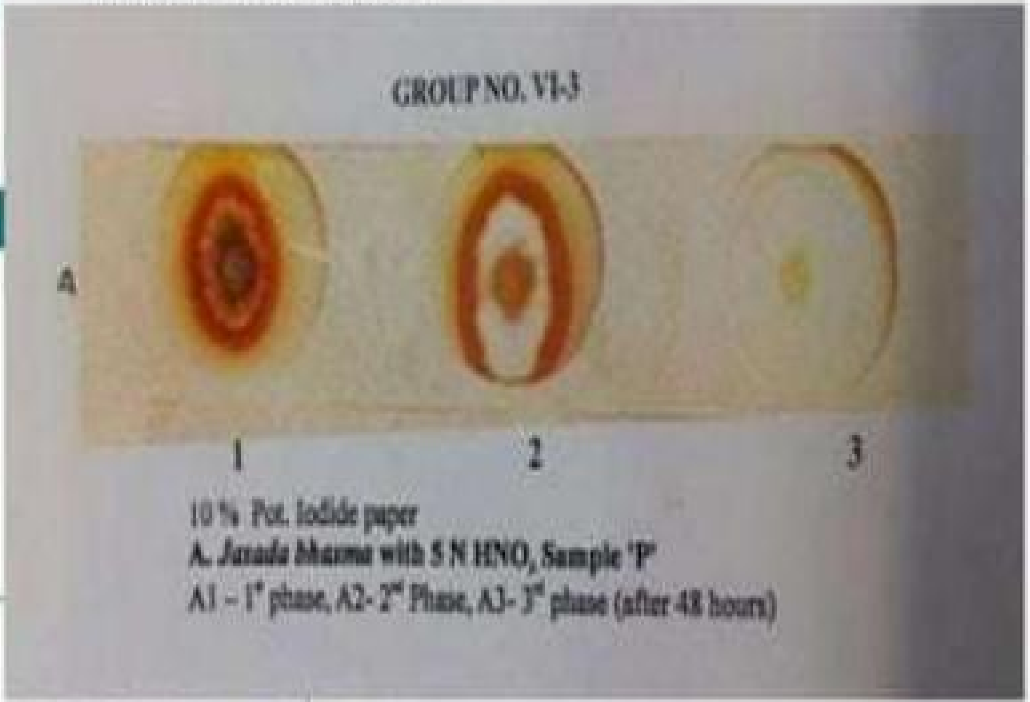
Journal of Analytical & Bioanalytical Techniques

Research Article

Qualitative Analysis of Yashada Bhasma

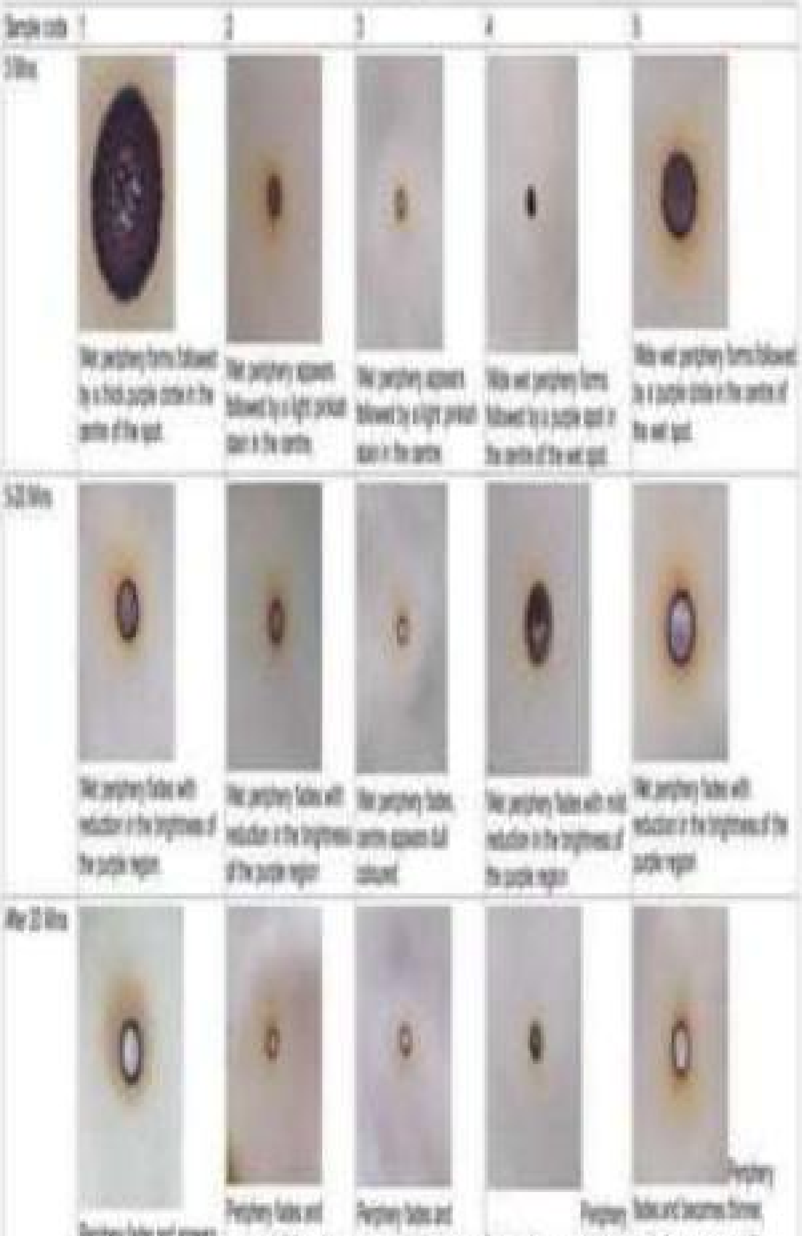
Adarsh T, dhwani J and Rajendraswami Hiremath*

Kaher's Shri B.M Kankanawadi Ayurveda Mahavidyalaya, Shahapur, Belgaum



Abstract

Yashada-Bhasma is the calyx obtained by processing raw Yashada (Zinc). Its medicinal properties have been well identified centuries ago and have been used for the benefit of mankind. Even today, Yashada-Bhasma stands as a promising medicine for several ailments and is being manufactured by several pharmaceutical companies. In order to bring about standardized quality assessment of such a widely used medicine, an effort has been made to analyze five market samples of Yashada-Bhasma through traditional methods of Bhasma-pareeksha and contemporary methods including Namburi Phased Spot Test (NPST). The study intends to stand helpful for similar analysis of Bhasmas to bring about a standardized method of qualitative assessment.



Among the five samples selected, only sample 1 passed all of the Bhasmapareekshas. However, we find that none of the samples comply with the standards prescribed by NPST. Previous studies clarify that NPST standards are met when the process of Marana is carried out using Parada.2 However, the samples collected have been prepared following the reference of Rasatarangini, wherein Marana is carried out using Kumariswarasa as bhavana dravya, the same is adopted by API, wherein samanya-shodhana is first prescribed by Dhalana through Taila, takra, gomutra, aranala and kulatthakwatha, seven times each [5]. No visheshashodhana method is prescribed by API. Further, Jarana using Apamarga-churna and Marana by preparing Chakrikas by triturating Jarita-yashada with Kumari swarasa are advised. Though the samples were from five different market sources, the reference (method) used to prepare the samples have been the same. Our Acharyas have also stated that it is best to perform Marana with the help of Parada [6].

Strictly going by theguidelines of API, there is novishesha-shodhana prescribed, and Marana is prescribed using Kumariswarasrasa. However, in samples that have followed the same, NPST standards have not been met. However, in previous studies where visheshashodhana was done following samanyashodhana and Marana was done using

ISSN 2456-3110

Journal of
Ayurveda and Integrated Medical Sciences

ORIGINAL ARTICLE Nov-Dec 2019

Qualitative assessment of *Swarnamakshika Bhasma* (Copper Pyrite) using Nambhuri Phase Spot Test

Dr. Shrikanth A. S.[1], **Dr. P. G. Jadar.**[2]

[1]Assistant Professor, Department of Rasa Shastra, Rajrajeshwari Ayurvedic Medical College and Hospital, Humnabad, Karnataka, [2]Vice Principal, Department of Rasa Shastra and Bhaishajya Kalpana, BMK Ayurveda Medical College, Belgaum, Karnataka, INDIA.

ABSTRACT

Swarnamakshika is one among *Maharasa* (Great minerals), on reviewing the *Ayurvedic* classics, it is evident that therapeutic use of *Swarnamakshika* (Copper Pyrite) has been in practice since *samhita kala* (300B C- 600 B.C) period. *Swarnamakshika* (Copper Pyrite) used since time immemorial in treating various diseases like *pandu* (Anemia), *kushta* (Skin ailments), *prameha* (Diabetes) and it is best *Rasayana* (Immuno-modulatory) etc. *Swarna Makshika* (Copper pyrite) is the most abundant copper bearing mineral. Swarnamakshika (Copper Pyrite) was prepared according to the Ayurvedic classics and subjected to various *bhasma parikshas* (Powder test) as explained in *Rasashastra* (Indian Alchemy) text and also including the Namburi Phased Spot Test one of the qualitative tests described for various Ayurvedic preparations of *Bhasma* (Powder). NPST helps differentiate between purity of the sample, and thus identify, various bhasmas. It depends upon the pattern of the spot, which develops after a specific chemical reaction. Sample of *Swarna Makshika Bhasma*, (Swarnamakshika powder) which was tested with NPST the bhasmas (Ashes) prepared in our college, produced the most accurate results.

SN	Sample	I Phase	II Phase	III Phase
1.	SMB	Dark brown colored central spot with regular margins Light brown periphery	Dark brown colored central spotWhite ring at periphery.	Fading of Central spot with light brown margin.

Figure 1: I Phase

Figure 3: III Phase

2nd Phase

Qualitative Analysis of 3 different market samples of Swarna Bhasma by using Namburi Phased Spot Test (NPST)

DR RAJESHWARI V. KAMAT*, DR R.S.HIREMATH, DR P.A.PATIL***, DR B.S.PRASAD******

*Reader Dept of Rasashastra & Bhaishajya Kalpana ,KLE Academy of Higher Education & Research (KAHER) Shri BMK Ayurveda Mahavidhyalaya Belagavi

**Professor & Head Dept of Rasashastra & Bhaishajya Kalpana ,KLE Academy of Higher Education & Research (KAHER) Shri BMK Ayurveda Mahavidhyalaya Belagavi

*** Professor & Head Dept of Pharmacology , USM Medical School Belagavi

**** Principal & Dean KLE Academy of Higher Education & Research (KAHER) Shri BMK Ayurveda Mahavidhyalaya Belagavi

Received: 28.04.18, Revised: 28.05.18, Accepted: 28.06.18

ABSTARCT

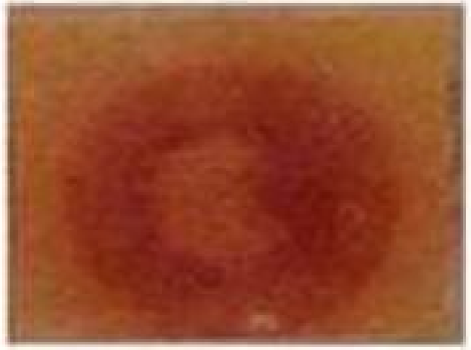
Swarna Bhasma is frequently used in clinical practice by Ayurvedic Physicians to treat various ailments. Swarna Bhasma is very costly. Now a days we have seen lot of adulteration with the Swarna bhasma[7]. So, with Namburi Phased Spot test 3 samples of Swarna Bhasma available in the market were analysed in the present paper.

Key words : Swarna Bhasma, Namburi Phased Spot test, NPST

NPST Results of three samples of Swarna Bhasma

Observation	Sample 1	Sample 2	Sample3
I phase (0-5 min)	Deep brick red central solid spot with deep brick red margin.	Deep brick red central solid spot with deep brick red margin	Deep brick red central solid spot with deep brick red margin
II Phase (5-20min)	Wet periphery faded with reduction in the brightness.	Wet periphery faded with reduction in the brightness	Wet periphery faded with reduction in the brightness
III Phase (20 min-1day)	Red spot faded with reduction in the brightness.	Brown colour circular spreading with reduction in the brightness	Brown colour circular spreading with reduction in the brightness

Ratnakara 5/8357. As per the reference preparation methodology is Shuddha Swarna 1 Part + Shuddha Parada 2 Parts and bhavana with nimbu Swarasa then formation of lingakara, Shuddha Gandhaka 3 Parts spread around lingakara in Sharava and finally Kukkuta Puta were given for 14 times peak temp observed was 650°C.



Standard NPST of Swarna Bhasma

Immediate Spot Patterns of Sample 1, 2, 3 respectively.

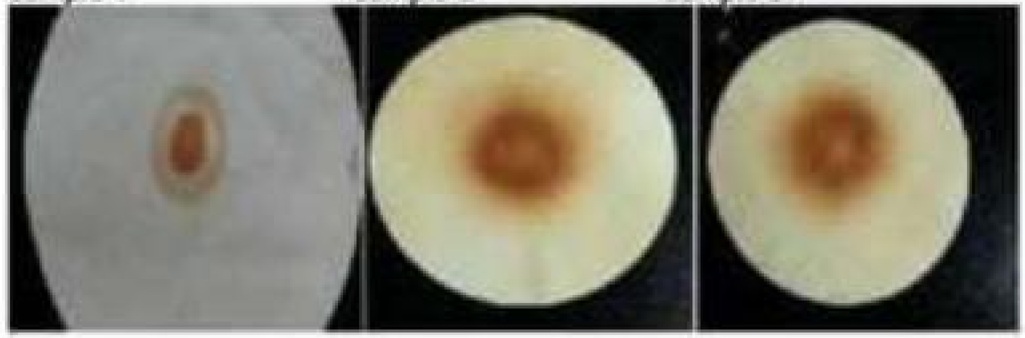
Sample 1

Sample 2

Sample 3

After 24hrs spot Pattern sample1, 2, 3 respectively.

Sample 1 Sample 2 Sample 3



International Journal of Biology, Pharmacy and Allied Sciences (IJBPAS)
'A Bridge Between Laboratory and Reader'
www.ijbpas.com

NAMBURI PHASED SPOT TEST (NPST) OF KASISA BHASMA

RAKSHITHA D[1*], SEMWAL N[2], HUSSAIN G[3] AND SHARMA G[4]

1, 2: P.G Scholar, **3:** Associate Professor, **4:** Professor

Department of Rasashastra and Bhaishajya Kalpana, Sri Dharmasthala Manjunatheshwara College of Ayurveda & Hospital, Hassan, Karnataka, India

***Corresponding Author: Rakshitha D:** rakshuammu2626@gmail.com

Spot, color and fading time at different phases	At 1st phase (0-5 minutes)	A deep blue solid spot formed immediately, blue margin encircled the entire spot	A dark thick blue solid spot formed with blue margin encircled the entire spot that delayed comparatively
	At 2 nd phase (5-20 minutes)	Deep blue solid central spot with a dominating moderately deep blue periphery	Dark thick blue solid central spot with blue periphery
	At 3rd phase (4 hours after 1st phase)	A deep blue solid spot formed without blue periphery. A blue margin encircled the entire spot very closely	Dark blue solid spot formed without blue periphery but delayed in encircling of the entire spot comparatively

Figure: 5(a)
Sample A at first phase

Figure: 5(b)
Sample B at first phase

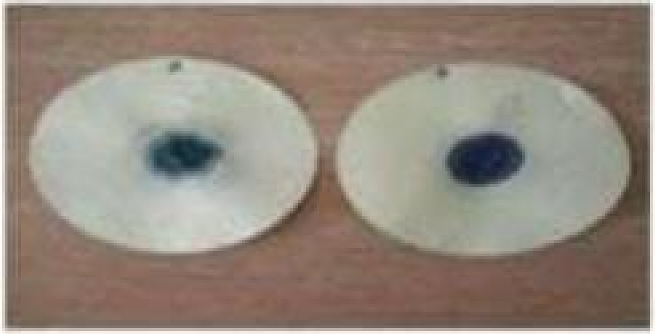


Figure: 5(c)
Samples at second phase

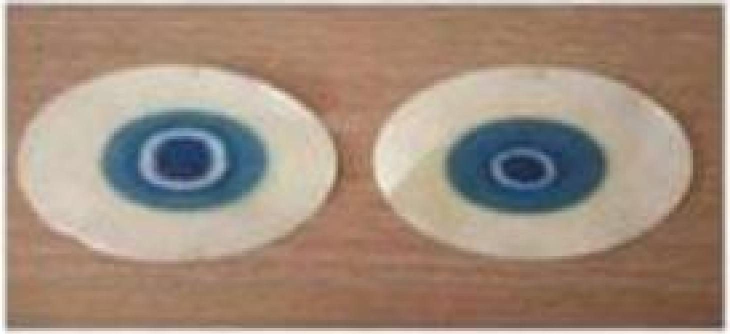


Figure: 5(d)
Samples at third phase

CONCLUSION

- NPST is a simple test that it can be carried out with minimum set up and requirements.
- This technique is very helpful for quality assessment of Sindhura and bhasmas as per the standards of Rasashastra
- The classical tests cannot differentiate between bhasmas chemically but in NPST, as the test is chemical reaction-based, specific bhasmas are denoted even chemically.

Dept. Rasashastra & B. Kalpana

THANK YOU