

Available online on 15 March, 2025 at <http://www.hjhs.co.in/index.php/hjhs>

Himalayan Journal of Health Sciences

Published by Himalayan Group of Professional Institutions

Associated with Himalayan Institute of Pharmacy

Copyright© 2016-25 HJHS



Review Article

Open Access

Concept of *Bhasma*, their Preparation and Significance in *Rasashastra*

Kiran E. Jawale^{*a}, Anjajli Rakibe^b^aProf. & HOD Dept. of Rasashastra & Bhaishajya Kalpana, SVNH Ayurved Mahavidyalaya & Chikitsalaya, Rahuri, Ahmednagar (MS) 413706, India^bP.G. Scholar, Rasashatra Dept.SVNH Ayurved Mahavidyalaya & Chikitsalaya, Shree Shivajinagar, Rahuri, Dist. Ahmednagar (M.S.)413706

Abstract

Ayurveda has many branches and *Rasashatra* described as one of them which encompass information on metal and mineral based formulations. *Bhasma* is one of the key formulations of Ayurveda *Rasashatra* which are prepared by various processes including purification, grinding and incineration, etc. The process of size reduction makes them most suitable for the administration in biological system. These formulations offer several advantages, including palatability, high potency, bioavailability, optimal absorption and reduced dosing frequency, etc. *Bhasma* is utilized not only for treating various ailments but also for promoting overall health and rejuvenation effects. Various analytical techniques are described in medical science to determine standardized parameters of such traditional formulations. These analytical techniques ensure safety and efficacy of herbo-mineral preparations. This review covers concept of *Bhasma*, their preparation techniques and significance of *Bhasma* in *Rasashastra*.

Keywords: Ayurveda, Rasashastra, Bhasma, Incineration, Purification.**Article Info:** Received 16 Feb 2025; Review Completed 09 Mar 2025; Accepted 12 Mar 2025**Cite this article as:**Jawale KE, Rakibe A. Concept of *Bhasma*, their Preparation and Significance in *Rasashastra*. Himalayan J H Sci [Internet]. 2025 Mar 15 [cited 2025 Mar 15]; 10(1):9-11. Available from: <http://www.hjhs.co.in/index.php/hjhs/article/view/223>**DOI:** 10.22270/hjhs.v10i1.223

*Corresponding author

1. Introduction

Bhasma is Ayurvedic formulation which is well known for their ability to maintain normal physiology of body. They are prepared by neutralizing harmful metals using various process of *Rasashastra*. The efficacy of *Bhasma* in alleviating disease merely depends upon their quality that can be assessed by standardized procedures. Standardization of *Bhasma* is paramount to ascertain their identity, purity, safety and quality, etc. The incinerating metal processed with herbal decoction in various steps is mainly used for the preparation of *Bhasma*, thus they are considered as transformed metallic nano-particles. Natural compounds treated materials and metals along with animal products to prepare *Bhasma* formulation. The process of *Bhasma* preparation consist considerations of standard procedures and uses of high-quality raw materials for achieving the optimum quality of desired formulations. (1-5)

Ayurveda recommends herbs, metals and mineral-based these formulations for treating various health conditions. The preparation process detoxifies toxic metals, converting them into biologically compatible, non-toxic forms. The therapeutic efficacy and optimal

pharmacokinetic properties of *Bhasma* are largely attributed to its minute particle size, which enables efficient transport of active ingredients to targeted sites. Ayurveda described preparation and uses of various types of *Bhasma* as mentioned in **Figure 1. (4-7)**

2. Various Methods of Preparation of *Bhasma*

Rasa Shastra describes several methods for *Bhasma* preparation, including *Shodhana*, *Amritikarana*, *Marana*, *Samskara* and *Satavapatana*. Additionally, intermediate steps such as *Chakrikanirmana*, *Sarava-samputikarana* and *Bhavana* also play a crucial role in the preparation of these formulations. The preparatory techniques not only elevate the therapeutic potential of *Bhasma* but also transform metals or minerals into biologically compatible forms suitable for medicinal use.

The process of *Bhasmikaran* is employed to prepare *Bhasma*, transforming non-bio-compatible substances into bio-compatible products. This process plays a crucial role in eliminating harmful components, converting undesirable characteristics into beneficial ones, improving physical properties, enhancing the therapeutic efficacy of drugs and also reduces their side effects. On

the basis of preparation method, *Bhasma* can be categorized into three types as mentioned below (5-8):

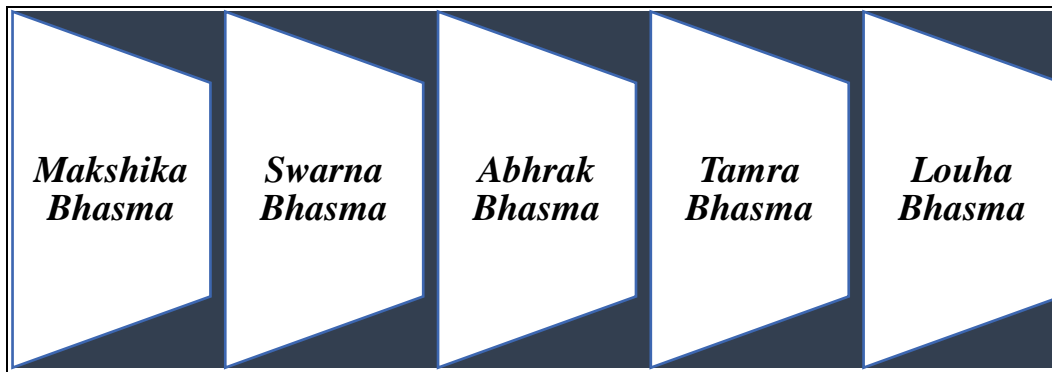


Figure 1. Common examples of *Bhasma* used in Ayurveda practices

- ✚ Metal-based *Bhasma*
- ✚ Mineral-based *Bhasma*
- ✚ Herbal *Bhasma*

Bhasmikaran process is mainly completed in three phases; purification, calcination and post procedure quality improvement. These phases include multiple steps for *Bhasma* preparation like *Chalan*, *Galan* and *Putanbhasmakaran*, etc. (7-9)

- ❖ *Shodhana* as purification method works on detoxification of harmful substance it is possible by decoction of herbal extract and natural juices.
- ❖ *Bhavana* imparts wetness as it involves wet trituration.
- ❖ *Chakrikanirmana* utilized for pelletization purpose, which is crucial for accurate dosing formulation. It also ensures uniform heating by enabling proper heat transmission from the periphery to the core of the *Chakrika*.
- ❖ *Aatapa Shoshana* procedure works on drying the pellets.
- ❖ *Saravasamputikarana* work on the quality control and assurance which involves sealing a casserole, protect material from contamination preventing loss during heat treatment, uniform atmosphere maintenance and restricting the escape of volatile substances.
- ❖ *Lohitakarana* and *Amritikarana* process works on the improvement of the quality of *Bhasma* preparation this is post procedure method.

3. Properties of *Bhasma* (1, 5, 8-10)

- *Bhasma* possess specific color, based on their parent material.
- *Bhasma* should be dull; while presence of luster indicates further need of incineration.
- *Bhasma* must float on still water because well incinerated *Bhasma* surely possesses this property.
- Particle size *Bhasma* must be fine powdered form.

- *Bhasma* should not gain its original metallic state again.
- *Bhasma* is non-reactive to basic taste

4. Significance of *Bhasma* in *Rasashastra* (1, 5, 8-10)

- ❖ *Bhasma* is said to be very potent, easily absorbed and devoid of toxicity if prepared well.
- ❖ It is employed in balancing *Doshas*, curing several diseases and boosting immunity.
- ❖ *Bhasmas* due to their ultra-fine particle size; are readily absorbed by the body, which makes them highly effective as drugs.
- ❖ *Bhasmas* balances overall well-being and harmony of bodily elements.
- ❖ Some *Bhasmas* such as *Swarnabhasma* is well known to enhance vitality and immunity.
- ❖ Being a *Rasayana*, they promote longevity and retard the process of aging.
- ❖ *Bhasmas* are useful in the treatment of gastrointestinal, cardiac and respiratory diseases.
- ❖ Even in very small amounts, they provide maximum therapeutic benefit through the promotion of *Agni*
- ❖ They enhance nutrient assimilation in the body.
- ❖ *Bhasmas* are useful in the treatment of gastrointestinal, cardiac and respiratory diseases, etc.
- ❖ They provides rejuvenative & anti-aging properties thus delay early aging
- ❖ Enhances mental clarity since they offers *Rasayana* property and boost mental strength.
- ❖ *Bhasmas* possess long shelf life thus can be stored safely for longer period of time.

5. Conclusion

Bhasma is a traditional nanotechnology formulation in which drug particles are micronized or nano-sized to facilitate quick absorption and easy assimilation in the body. Its preparation includes important steps such as *Shodhana* and *Marana* which resembles purification and

incineration respectively. These process converts metallic preparations into non-toxic, easily absorbable and bio-available forms with maximum therapeutic efficacy. *Bhasmas* possess *Rasayana*, *Yogavahi*, immuno-modulatory and anti-aging activities. They have distinctive attributes like *Varitara*, *Nischandratvam*, *Rekhapurnatva*, *Gatarasatvam*, *Apunarbhavata* and *Susukshma*. In addition to their medicinal uses, *Bhasmas* also aid in the re-establishment of normal physiological functions. *Swarnabhasma*, *Rajatabhasma* and *Tamrabhasma* are a few of the widely used *Bhasmas* used in ancient practices.

Acknowledgements

We would like to express our gratitude to Himalayan Journal of Health Sciences who gave us the opportunity to publish the article.

Financial Disclosure statement:

The authors have no relevant affiliations or financial involvement with any organization or entity with a financial interest.

Conflict of Interest

The authors declare that there is no conflict of interest regarding the publication of this article.

References

1. Shudaldevmohaptra, Physicchemical characterization of ayurvedic bhasma (swarnamashikabhasma):an approach to standardization, International Journal of Ayurveda Research, 1, 2010, 82-83.
2. Kulkarni SD, editor.2nd edition, Acharya Vagbhat, Rasa Ratna Samuchhaya, Dravyadravyavidaniya, chapter 2, New Delhi: ML Publication; 1998. p. 148
3. Wadekar MP, Patel RK, Preparation and characterization of a copper based Indian traditional drug: Tamrabhasma, Journal of Pharmaceutical and Biomedical Analysis, 39, 2005, 951–955.
4. Sunil Kumar Singh, Preparation and characterization of a mercury based Indian traditional drug Ras-Sindoor, Indian Journal of Traditional Knowledge, 8 (3), 2009, 346-347.
5. Sharma R K & Dash B (2000) Agnivesh's Charaka Samhita, vol. 3, Chaukhamba Sanskrit Series Office, Varanasi, 43-44
6. Kulkarni DA (1998) Rasa Ratna Samuchhaya, Meharchand Publications, New dehli, 198.
7. Mishra S, Ayurvediya Rasashastra, Chaukhamba Orientalia, Varanasi, Revised 2011, 47, 93.
8. Shastri K N (2000) Sadanand Sharma's Rasatarangini, Motilal Banarasidas Publications, New Delhi, 15, 228.
9. Rastogi S (2010) Building bridges between Ayurveda and Modern Science, 41-46.
10. Karisnashastri, editor. 'Nighantu Ratnaakara', Part-1. Mumbai (India): Nirnaya sagar Press; 1936. Anonymous.