

Available online on 15.04.2019 at <http://jddtonline.info>

Journal of Drug Delivery and Therapeutics

Open Access to Pharmaceutical and Medical Research

© 2011-18, publisher and licensee JDDT, This is an Open Access article which permits unrestricted non-commercial use, provided the original work is properly cited



Open  Access
Article

Review

Ayurveda Concept of *Bhasma*, Specific Role in Diseases Management and Precautionary Measurements Related to *Bhasma*: A Review

Dr. Amita Sharma^{1*}, Dr. Umesh Shukla², Dr. Rishi Mishra³¹ Lecturer, Dept. Ras Shastra Evam Bhai-Bhaishajya-Kalpna, Rajeev Gandhi Ayurved College and Hospital, Bhopal (MP) India.² Associate Professor, Dept.-Panchakarma, Pt. Shiv Shakti Lal Sharma, Ayurvedic Medical College and Hospital, Ratlam (MP) India.³ Associate Professor, Dept.-Panchakarma, Rajeev Gandhi Ayurved College and Hospital, Bhopal (MP) India.

ABSTRACT

Metals and metallic preparations have a great historical background in Ayurveda system. Metals such as; *Parada* (Mercury), *Rajata* (Silver), *Tamra* (Copper), *Swarna* (Gold), *Lauha* (Iron), *Vanga* (Tin) and *Yasada* (Zinc) possessing some therapeutic value. However these metals can't be used without processing or purification, therefore they are used in incinerated form as *Bhasma*. These herbo-metallic preparations offer different therapeutic values and utilizing since evaluation of ayurveda. The proper preparation method, dose regimen and duration of use are some important aspects need to be considered while using *Bhasma*. *Bhasma* may produce severe adverse effects if used without considering precautionary measurements. Present article described various ayurveda perspective of *Bhasma*.

Keywords: *Ayurveda, Bhasma, Herbo-metallic, Incinerated.*

Article Info: Received 27 Feb 2019; Review Completed 31 March 2019; Accepted 07 April 2019; Available online 15 April 2019



Cite this article as:

Sharma A, Shukla U, Mishra R, Ayurveda Concept of *Bhasma*, Specific Role in Diseases Management and Precautionary Measurements Related to *Bhasma*: A Review, Journal of Drug Delivery and Therapeutics. 2019; 9(2-s):649-651
<http://dx.doi.org/10.22270/jddt.v9i2-s.2525>

*Address for Correspondence:

Dr. Amita Sharma Lecturer, , Dept. Ras Shastra Evam Bhai-Bhaishajya-Kalpna, Rajeev Gandhi Ayurved College and Hospital, Bhopal (MP) India.

Introduction

Ayurveda the science of disease and health management described use of metallic preparation for therapeutic purposes (**Table 1**). *Rasa-Shastra* is one of the important modality of Ayurveda which involve descriptions of herbo-mineral/metallic preparations as medicines. These herbo-mineral/metals/preparations having immunomodulatory, anti-aging and *Yogavahi* characteristics therefore used to enhance strength, luster, complex and immunity. The authentic, processed, purified, nontoxic, absorbable, adaptable and digestible form of metallic preparation termed as *Bhasma* which mainly prepared through the process of incineration.

Bhasma is ancient ayurveda formulation prepared by treating metals/minerals with herbal juice or decoction after several steps of purification and incineration. The *Parpati*, *Rasayoga* and *Sindora*, etc. are some methods of *Bhasma* preparation. The particle size reduced up to 1-2 μ which help in the absorption and assimilation of the drug/metals into the biological system. The purification and size reduction process not only imparts therapeutic values in *Bhasma* but also reduces the harmful effects of

metals/minerals. The *Bhasma* may be different types based on basic elements as depicted in **Figure 1**.

Example of some ayurveda *Bhasmas*:

- ❖ *Mandura Bhasma*
- ❖ *Shukti Bhasma*
- ❖ *Vanga Bhasma*
- ❖ *Yashada Bhasma*
- ❖ *Swarnmakshik Bhasma*
- ❖ *Heerak Bhasma*
- ❖ *Tamra Bhasma*
- ❖ *Loha Bhasma*
- ❖ *Abhrak Bhasma*
- ❖ *Swarna Bhasma*
- ❖ *Rajat Bhasma*



Figure 1: Bhasma based on their chief components

The various steps of *Bhasmikaran* are as follows:

- ❖ *Shodhana*: Purification.
- ❖ *Marāṇa*: Powdering
- ❖ *Chalana*: Stirring/mixing
- ❖ *Dhavana*: Washing
- ❖ *Galana*: Soaking then filtering
- ❖ *Puttana*: Heating/treatment on specific temperature in several steps.

- ❖ *Mardana*: Triturating
- ❖ *Bhavana*: Coating with extract/mixing
- ❖ *Amṛtikaraṇa*: Detoxification
- ❖ *Sandharana*: Proper storage

The general health benefits of *Bhasma* are as follows:

1. *Bhasma* help in purification of kidneys and liver.
2. *Bhasma* provides absorbable and usable calcium thus maintains health of bones and teeth.
3. *Bhasma* relieves insomnia, depression, weakness, fatigue and boost strength.
4. *Bhasma* help to maintain minerals balances, metabolize iron and boost nervous system.
5. Neutralizes harmful acids since it offers optimum alkalinity.
6. Protect body form free radical damage.

Properties of *Bhasma*

- ❖ *Bhasmas* are white, pale or red in colour.
- ❖ Possess lusterless, lightness and fineness.
- ❖ *Bhasma* should floats on water surface; should be in powder form.
- ❖ *Bhasma* should be uniform in size, and devoid toxic effects of metals.
- ❖ Free from moisture and foreign matter.
- ❖ Stable, should posses characteristic taste & odour.

Table 1: Specific Therapeutic Role of *Bhasma*

S. No.	<i>Bhasma</i>	Therapeutic Role
1	<i>Heerak Bhasma</i>	Used in cancers, rheumatoid arthritis, bone marrow depression and cure immune disorders.
2	<i>Tamra Bhasma</i>	Used in jaundice, anemia and help to manage abdominal disorders.
3	<i>Loha Bhasma</i>	Help to cure liver enlargement, anemia and jaundice.
4	<i>Abhrak Bhasma</i>	Help in respiratory disorders, anemia, diabetes and reduces weakness.
5	<i>Swarna Bhasma</i>	Improves immunity, treat weakness and anemia.
6	<i>Rajat Bhasma</i>	Used for irritable bowel syndrome, acidity and pacify vitiate Pitta.
7	<i>Swarnmakshik Bhasma</i>	Used for anemia, jaundice and chronic fever.
8	<i>Yashada Bhasma</i>	It is used for urinary diseases, menorrhagia and for Vata imbalance.
9	<i>Vanga Bhasma</i>	It is good for fatty defects, used in urinary diseases and offers beneficial effects in anemia.
10	<i>Shukti Bhasma</i>	Having diuretic action, treat blurred vision and used externally for blisters.
11	<i>Mandura Bhasma</i>	It is used in enlarged spleen, hepatitis, anemia, edema, blood loss and treats itching.

Precautionary measurements related to use of *Bhasma*:

- ❖ *Bhasma* should be keep away from reach of children.
- ❖ The *Swaran bhasma* should not be used within 09 months.
- ❖ *Bhasma* should not be used in higher dose than recommended.
- ❖ Should be prepared according to prescribed formulary and never used without proper purification.
- ❖ *Bhasma* administration should be stopped if irritation observed in gastrointestinal tract.
- ❖ *Bhasma* should be taken only for recommended duration and under physician supervision.
- ❖ *Bhasma* generally not recommended in case of severe intestinal blockage and diarrhea.
- ❖ Hypercalcemia, hyperparathyroidism and improper functioning of kidney also restrict use of *Bhasma*.
- ❖ Use of *Bhasma* in children and elderly generally not recommended.
- ❖ Dietary and living regimen should be followed strictly while using *Bhasma*.

- ❖ Manufacturing procedures should be supervised by qualified *Rasavaidya* at every stage.
- ❖ The sources and purity of raw material must be verified.
- ❖ The label clearly mentions the list of heavy metals and their quantity on container.

Conclusion

Though *Rasa Shastra* is an important aspect of ayurveda; described use of *Bhasmas* as metallic preparations for various therapeutic purposes. The literature survey revealed that *Kukkutanda twak bhasma* offers relief in *Swetapradara*, *Swarna Bhasma* help in the management of tumor and leukemia. Some *Bhasmas* possesses antioxidant, immunomodulatory and restorative effects. *Bhasmas* mainly employed for strengthen physical and mental health, longevity, to improve complexion and luster. Ayurveda strongly recommended that precautionary measurements must be taken while using *Bhasmas* since improper preparation or use may cause severe harmful effects.

References

1. Mishra LC, Adra T, Batchu SV, Bhatt HA. LLC Boca Raton, Florida: CRC Press; 2004. Scientific basis for ayurvedic therapies; pp. 84–99.
2. Verma D, Tiwari SS, Srivastava S, Rawat A. Pharmacognostical evaluation and phytochemical standardization of *Abrus precatorius* L. seeds. *Natural Product Sciences*. 2011; 17:51–7.
3. Sarkar PK, Chaudhary AK. Ayurvedic Bhasma: The most ancient application of nanomedicine. *J Sci Ind Res*. 2010; 69:901–5.
4. Bhowmick TK, Suresh AK, Kane SG, Joshi AC, Bellare JR. Physicochemical characterization of an Indian traditional medicine, *Jasada Bhasma*: Detection of nanoparticles containing non-stoichiometric zinc oxide. *J Nanopart Res*. 2009; 11:655–64.
5. Sharm DC. India raises standards for traditional drugs. *Lancet*. 2000; 356: 231.
6. Balasubramanian SK, Jittiwat J, Manikandan J, Ong CN, Yu LE, Ong WY. Biodistribution of gold nanoparticles and gene expression changes in the liver and spleen after intravenous administration in rats. *Biomaterials*. 2010; 31:2034–42.
7. Chaudhary A. Ayurvedic bhasma: Nanomedicine of ancient India its global contemporary perspective. *J Biomed Nanotechnol* 2011; 7(1):68-9.
8. Sandhiya S, Dkhar SA, Surendiran A. Emerging trends of nanomedicine an overview. *Fundam Clin Pharmacol* 2009; 23 (3); 263-9.
9. Chakraborty M, Jain S, Rani V. Nanotechnology: Emerging tool for diagnostics and therapeutics. *Appl Biochem Biotechnol* 2011; 165(11):1178-87.
10. Prakash VB, Prakash S, Sharma R, Pal SK. Sustainable effect of Ayurvedic formulations in the treatment of nutritional anemia in adolescent students. *J Altern Complement Med* 2010; 16 (2):205-11.

