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An Observational Study: Ancient Approach on Bhasma as Principal Formulation of Rasashastra

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KEYWORD

Bhasma;
Shodhana;
Marana;
Rasashastra,

ABSTRACT

Rasashastra, which deals with formulations based on minerals and metals, describes the manufacture of such medicines and their significant medicinal potential. To make these medications harmless and effective, particularly specialized processing methods are used during manufacture. The two fundamental processes involved in the creation of Rasa- Aushadhis are called Shodhana, which means purifying, and Marana, which means incineration/calcinations. The term "Bhasma Kalpana" refers to a preparation that is regarded to be herbo-metallic and is described in Ayurveda Samhitas from the Arsha Sampradaya. These herbal, mineral, and metallic formulations (Bhasma) are primarily made by several processes, including cleaning, grinding, combining, heating, incineration, and size reduction.These medications have the benefits of being palatable, having low dosage frequency, being very potent, having good bioavailability, having optimal absorption, and having a broad therapeutic spectrum. Bhasma is recommended for enhancing overall health and having revitalizing benefits in addition to being utilized for medicinal purposes. Commonly used bhasmas are Makshika bhasma, Swarna bhasma, Abhrak bhasma, Lauha bhasma, and Tamra bhasma. The bhasma is recommended for a variety of pathological illnesses, including as infections, skin diseases, digestive problems, and abnormalities of the sexual organs

1. Introduction

Ayurveda recommended using herbs, metals, and mineral-based remedies to treat a variety of illnesses since natural substances have been utilized for medicinal purposes widely. One such sort of formulation is the Bhasma, which is made from mental/mineral substances following their cleansing. The primary method of creating bhasma

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for usage as nanomedicines is to burn metals. Metals that are harmful are changed during the manufacture of bhasma into forms that are not toxic and are compatible with living things. Bhasma's therapeutic impact and ideal pharmacokinetic characteristics can be linked to their tiny particle size, which makes it simple for the active components to be transported to the targeted areas.Several preparatory techniques for Bhasma, including as Shodhana, Marana, Amritikarana, Satavapatana, and Samskara, were mentioned in Rasa Shastra. Bhavana, Chakrika nirmana, and Sarava-Samputikarana, among other intermediary phases, are crucial in the production of Bhasma. These pre-treatment techniques provide Bhasma a high therapeutic value while transforming incompatible metal or mineral forms into forms that are compatible with living things. Bhasma Kalpana has greater effectiveness at lower doses, superior palatability, optimum biological system absorption, stability, and the capacity to treat long-term health issues. Some Samskaras are used in Bhasmikaran to change hazardous or incompatible mineral or metal forms into non-toxic and compatible forms while maintaining or enhancing their medicinal potential.

2. PROCESS OF PREPARATION

2.1. PRE-TREATMENT

To detoxify hazardous compounds, the Shodhana (purification) method was carried out.

2.1. PRINCIPAL STEP (CALCINATION/INCINERATION)

Calcination, often known as incineration, is the primary technique that Ayurveda refers to as Marana. This process also includes intermediary processes like Bhavana, Cakrika nirmana, and Sarava-Samputi karana. Ancient scholars believed that of all the metals known for their medical properties, Parad was the most significant. Because of its ability to modify all other metals characteristics to such a great level, they occasionally undergo full transformations from their initial states. Uttam bhasma is produced when Mercury is incinerating with metal. Madhyam bhasma is produced when metals are incinerating with Herbs/ Kastaushadhis. Adhama bhasma is produced when incineration of metals with sulphur and other substances. Durguna bhasma is produced during the incineration of metals together with Arilohas.

2.3. AFTER-PROCEDURE

Following the preparation of the Bhasma, the Lohitikarana and Amritikarana procedures are used to enhance the quality of the Bhasma preparation.

ROLE OF SPECIFIC PROCEDURE PREPARATION OF BHASMA

- Using plant extracts, juices, and decoctions, Shodana aids in purification.
- Bhavana offers moisture since it was used for wet trituration.
- For correct dosage formulation, chakrika nirmana, used for palletization, is crucial. Chakrika nirmana enables homogeneous heating because appropriate heat transfer happens from the Chakrika's periphery to its center.
- Pellets are helped to dry by Aatapa Shoshana.
- Sarava samputikarana delivers the casserole's sealing. This procedure facilitates uniform environment, avoids loss during heating treatment, safeguards against contamination, and stops volatile material from escaping.

3. PUTAPAKA BHASMA

Puta is known as quantum of heat required by Rasadi Dravyas (Mercury/Metal/Mineral) for their proper paka. Neither less nor more heating is desirable to incineration of dravyas. For internal administration Supakva medicines is required. Bhasmas made using the Putapaka process, which involves subjecting metals or minerals through the three phases of Shodhana, Bhavana, and Marana. Metals or minerals that have been reduced to a coarse powder and then purified (Shodhana), followed by heating to a red-hot temperature and treatment with a specified liquid medium for a certain amount of time. After that, Shodhit material is combined with certain pharmaceuticals for Marana purposes and Bhavana is administered while utilizing specific drugs for a set amount of time. Chakrikas are made once Bhavana is complete and sealed in a crucible with mud-covered clothing. During a specific amount of time, Sharava Samputa is heated using putas. To produce the final Bhasma formulation of the requisite quality, these operations were performed several times.

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4. KUPIPAKWA BHASMA

Tin, zinc, and lead are examples of metals with low melting points that demand for an intermediate process called Jarana, which is carried out in between the Shodhana and Bhavana procedures. In Jarana, metals are melted, combined with a plant ingredient, and then ground into a powder. A combination of methods, including Shodhana, Kajjali Nirmana, Bhavana, and Kupipakwa, are used to make Kupipakwa Bhasma. After the Shodhana technique, metals are amalgamated with mercury, combined with purified sulphur, and ground into a thin black powder known as Kajjali. This Kajjali is triturated for a specific amount of time using a specific liquid medium. After being exposed to the Valuka Yantra for a set amount of time, the bottle's bottom is where Bhasma is gathered.

5. BHASMA QUALITIES AND BHASMA PARIKSHA

5.1. Bhasmikaran

1. To relieve various ailments
2. For easy consumption
3. To minimize the complication after administration the drug
4. For easy assimilation

5.2. Bhasma Pariksha

Bhasma should have certain characteristics and quality requirements. Certain Pariksha can assess these characteristics of Bhasma.

1. Varitara
2. Rekhapurnatwa
3. Apunarbhava
4. Uttama
5. Niruthikarana

5.3. Varitara Bhasma

If the bhasma of loha is very fine, so that it can float on water, such bhasma is called Varitara

5.4. Rekhapurna Bhasma

If the bhasma of a metal, rubbed in between the thumb and index finger and if it enters into the minute lines of the fingures, such a bhasma is called Rekhapurna bhasma

5.5. Apunarbhava Bhasma

When a bhasm is mixed with Guda, Gunja, Tankan, Madhu, and Ghee, it becomes an Apunarbhava Bhasma, from which the original metal cannot be recovered even after being blown into the fire. It means that final bhasma composition cannot return its initial metallic form.

5.6. Uttama Bhasma

The bhasma is gently floated over the water, and if it does not sink even after being covered with grains but floats like a swan, it is referred to as an Unamabhasa or Uttama bhasma.

5.7. Niruttha Bhasma

Roupya and bhasma are combined, and they both blast ferociously into the fire. When bhasma does not even slightly combine with roupya, it is referred to as nirutha bhasma. The referred-to bhasma is also Apunarbhava. The two tests to be used to determine the purity of metallic bhasmas are nirutha and apurnarbhava, whereas the other three general tests (varitara, rekhapuranatwa, and uttama) are recommended.

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Bhasma should have a specified colour and change in that colour shows that Bhasma wasn't formed properly. When the brilliance of metal fades after appropriate cremation, Bhasma should have the property of Nischandratvam. When Bhasma is seen in direct sunshine, Nischandra must be present for it to have the desired quality and power. Bhasma must have slakshnatvam, a feeling brought on by light fingertip contact. Susukshma is a crucial aspect of bhasma because it facilitates absorption and possesses qualities of fineness and lightness. Another attribute of a bhasma is called gatarasatvam, and according to this standard, a particular variety of bhasma must have a distinctive flavour.

5.8. Mrtaloha

In Rasamitra and Rasataragini, Mrtaloha is mentioned, and this refers to the definition of Mrtaloha that goes into detail regarding its fineness. The method for heating and preparing the bhasma is not specified. The lines on the fingertips that show the particle size should be filled in when the bhasma, ash, incinerated metal, or mineral is rubbed between the index finger and thumb. Mrtloha therefore represented the dead metal, or its bhasma. It was once believed that a metal's bhasma was completely devoid of the fundamental metal. The fineness of the particle size is indicated by the metloha definition. Intense heating is required to kill (marana) or prepare the bhasma from a metal. According to contemporary chemistry, heating causes these metals to change into oxides or certain compounds. The process of marana kriya, or creating a bhasma, is the one that permits metals to be assimilated into the human body with the aid of heating and some manipulation. The finished item is known as mrtloha.

6. DISCUSSION

Bhasma is an ayurvedic metallic or mineral preparationthat is treated with herbal juices or decoction and exposed to heat for a specific period of time in accordance with the puta system of Ayurveda, which has been practiced on the Indian subcontinent since the seventh century A.D. and is highly regarded for treating a variety of disease conditions. Bhasma, which are administered together with several other Ayurvedic treatments, are said to be naturally formed nanoparticles.

The production process has a particular impact on the final product's raw material composition in the case of bhasma, which includes metals, minerals, and animal products. These may serve as significant chemical indicators of Bhasma made in a specific way. The particle size is significantly reduced during various stages of processing techniques like shodhana (which entails roasting, the addition of herbal juices, and continuous stirring), and marana [which entails bhavana (wet trituration), and puta system of heating]. This may aid in the drug's assimilation and absorption into the body system. The final product could be defined as meeting all the traditional criteria under Bhasma Pariksha.

7. CONCLUSION

Bhasma is a nanotechnology concept in which the size of medication particles is reduced to a nono or micronized form for speedy absorption and simple assimilation inside the body. The techniques of shodhana and marana, which transform metallic formulation into a form that is non-toxic, absorbable, simple to digest, and biologically compatible with the appropriate therapeutic efficacy, are crucial steps in the creation of bhasma. Rasayana, Yogavahi, Immuno-Modulatory, Anti-Aging, and Rejuvenating benefits are all provided by Bhamas. Common characteristics of Bhasma include Nischandratvam, Varitara, Rekhapurnatva, Susukshma, Gatarasatvam, and Apunarbhavata, among others. Bhasma is utilized for therapeutic purposes as well as to assist the body return to its regular physiological functioning. Bhasma is created using a specialized procedure and requires a great deal of experience, thus care must be used when preparing it.

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balance a coordinated energy-saving framework with cutting edge energy the board methods can further develop the energy quality and dependability of the system.

References:

[1] Rastogi S. Building bridges between Ayurveda and Modern Science.2010; 41-46.

[2] Sharma R K & Dash B. Agnivesh'sCharakaSamhita,vol. 3,ChaukhambaSanskrit Series Office, Varanasi.2000; 43-44

[3] Mishra S, AyurvediyaRasashastra, ChaukhambaOrientalia, Varanasi. Revised 2011; 47, 93.

[4] Kulkarni DA. Rasa RatnaSamucchaya, Meharchand Publications, New Delhi. 1998; 198.

[5] Shastri K N. Sadanand Sharma's Rasataringini, New Delhi: Motilal Banarasidas Publications. 2000; 15, 228.

[6] Karisnashastri, editor. 'Nighantu Ratnaakara', Part-1.Mumbai (India): Nirnayasagar Press; 1936.

[7] Shastri Brahmshankar. editor. 'Yogaratnakar- Poorwaardha'. Second edition. Varanasi (India): Chowkhambha Sanskrit Series Office; 1973. p. 151. Anonymous.

[8] The Ayurvedic Pharmacopoeia of India. New Delhi: Ministry of Health and Family Welfare, Govt. of India; 1978. Anonymous.

[9] Vaidya YadavjiTrikamji Acharya, Rasamrita with English commentary by Dr. damodarjoshi and G.prabhakar Rao, Chaukhambha Sanskritabhawan, Varanasi, 1st edition, Appendix – 1; 1998. p.253.

[10] Kaviraj Umesh Chandra Gupta, VaidyakSabda Sindhu compile by Sri nagendranath Sen.3rdedition.Varanasi: Chaukhambha orientialia; 1983.