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Formulation Of Abhrak Bhasma- A Research Article

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ABSTRACT: Abhrak Bhasma having various therapeutic uses has been used since long in Ayurveda. Present study deals with pharmaceutical procedures like Shodhan, Dhanyaabhrak Nirman, Maran of Abhrak. To assure the quality of Bhasma, Rasa shastra quality control tests like Nischandratva, Varitaratwa, Rekhapurnatva, etc., were used then the Bhasma was analyzed using modern parameters like LOD, LOI, Estimation of Iron, Aluminium, Magnesium, silica, XRD and SEM analysis. XRD study of Abhrak bhasma shows various peaks which shows presence of Mica, FeSO4, Fe2O3 in it. SEM study shows the presence of nanoparticles in which particle size ranges from 1 to 200 micron which is an invention of this new era. Abhrak bhasma is a type of ayurvedic preparation prepared from repeated incineration of mica mineral with decoction of various medicinal herbs. Traditionally, it has been used in the treatment of asthma, bronchitis, bleeding disorders, cough, cold, urinary disorders, diabetes, anemia, skin diseases, spleeny disorders etc. It has also been considered to have anti-aging as well as anti-infertility properties and therefore used in various rejuvenating preparations.

KEYWORD: Abhrak, Ayurveda, Bhasma, Aluminium, Analysis, Anti-aging, Rejuvenating

INTRODUCTION:

Chemical Formula Of Abhrak: K(Mg,Fe)3AlSi3O10(F,OH)2

In accordance to modern scientific studies, abhrak can be classified into two types, mainly Alkaline Mica and Ferromagnesium Mica.

But, according to Ayurveda, Abhrak is classified into four types, which are Pinak, Naag, Manduk, and Vajra. Again, it can also be categorized according to the available colors into four types, i.e. Yellow, White, Red and Black.

Synonyms Of Abhrak Bhasma

Abhrak bhasma is known by various names in the ayurvedic scriptures and modern scientific studies. These include Abar bhasma, Vyom, Vajra, Ghan, Kha, Gagan, Bhrung, Girija, Aakash, Shubhra, Ambar, Girijabeej, Gauritej, Bahupatra, Megh, Antariksh, Mica Mica Ash, Mica Nano-particles, Oxidized mica, Calcined & Powdered Talc, Calcined mica, Biotite calx, Calcined Biotite and Abhrak calx.

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Ayurvedic Indications Of Abhrak Bhasma

Ayurveda, the holistic science of herbal remedies has extensively mentioned the use of this time-tested compound multiple times in several ayurvedic scriptures and journals and has indicated its use in the following conditions including Rasayani (rejuvenates the whole body), Medhya (improves intelligence), Balya (improves muscle strength), Deepana (enhances stomach fire), Pachana (helps in <u>digestion</u>), Rochana (stimulates appetite), Vamana (prevents nausea and vomiting), Vayasthapana (prevents ageing), Jvara (useful in fever), Anulomana (improves breathing), Kasahara (Relieves cough, Shwasha (relieves breathing difficulties), Amahara (treats indigestion), Gulmajit (useful in abdominal tumours), Kantya (relieves <u>sore throat</u>), Chakushya (treats eye problems), Garbhaprada (treats infertility), Vamanopaga (treats emesis), Sangrahini (treats <u>diarrhoea</u>), and Kustha (treats skin disorders).

However, due to requirement of higher dosage, non-palatability and less shelf-life, the herbal medicines have their limitations. To overcome this, Bhasmas are the best alternatives as they can be prepared from the natural minerals and metals along with herbs by the process of Bhasmikarana in which toxic compounds are converted into non-toxic and bio-acceptable form. Abhrak bhasma (AB) is a type of bhasma prepared from repeated incineration of mineral mica with decoctions of about 72 herbs. The particle size of abhrak bhasma has been shown to be in the range of 29-88 nanometers and Fe, Ca, Se, Mg and K are found to be as major constituent3. The quality of abhrak bhasma differs as per the number of puta performed. The sahastraputi abhrak bhasma that undergoes 1000 puta is considered to be of finest quality. Different grades of Abhrak bhasma are used in the treatment of a vast range of ailments and also as a constituent of many rejuvenating formulations. Medicinal preparations such as Bhasma are unique to the Ayurveda, a traditional system of medicine. Bhasma involves the conversion of metal into its mixed oxide of higher oxidation state. These are generally prepared by repeated incineration of metals and minerals with medicinal herbs decoctions or juices so as to eliminate their harmful effects and are taken along with honey, milk, butter, or ghee (a preparation from milk). Herbo-mineral formulations of Ayurveda, constituting Bhasma as an ingredient, are the superior forms of administration of nano-medicine. Abhraka Bhasma, a herbo-mineral product of Ayurvedic pharmaceutical, acts on both the Doshas (bodily humors) and the disease to arrest the pathogenesis. It has held a tremendous sway on the Rasavaidyas (alchemists) and practitioners for centuries. Abhraka Bhasma is like supreme ambrosia; it destroys Vata (air), Pitta (fire), and disease Ksaya (phthisis). It has been used for several chronic diseases like tuberculosis, breathing problems like dyspnoea, asthma, piles, and skin diseases. Arthritis etc¹

Abhrak Bhasma is usually prepared via the calcination process which is termed as 'Puta' in ayurveda. The number of putas or calcination process defines the quality and therapeutic efficacy of abhrak bhasma. In case of abhrak bhasma, number of putas vary from 7 to 1000, often taking an entire year to finish the calcination process.

Ingredients:

Purified mica (biotite) or Sudhha abhrak Ayurvedic herbal juices, plant sap and decoctions Method:

Triturate the purified abhrak with the different types of plant saps, herbal juice and decoctions. After trituration, shape the remnant abhrak in the form of a disc-shaped cake.

Subject the cake to high temperature of about 800 - 900 °C. This entire process is one Puta.

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Keep doing this process again and again until you obtain Shataputi Abhrak Bhasma i.e. super-fine powdered bhasma.

Lastly put the Shataputi Abhrak Bhasma under direct sunlight to remove any remaining moisture particles.

Store it in amber-coloured, glass bottles for future use. Important steps involved in the formation of Abhrak Bhasma are a) Shodhan (purification) with different media like cowmilk, decoction of Triphala pieces of dry fruits Haritaki (Emblica officinalis), Vibhitaki (Terminalia bellirica) & Amalaki (Terminalia chebula), cow- urine and decoction of Badari (Zizyphus jujuba) are frequently used as medium².

Among them Nirvapa process (heating to red hot stage and immediately quenched in liquid medium) for seven times is most acceptable for Shodhan of Abhrak³

b) Marana i.e., trituration of metal or mineral with Eranda patra swaras & Guda for several hours & then repeated incineration and calcinations at high temperature in a Puta system of heating ⁴

Classical ayurvedic tests of bhasma

The as-prepared abhraka bhasmas firstly analyzed by traditional methods described in classical ayurvedic texts. These are Varitara – (ability of bhasma to float on water), Unnama – (a grain floats on a film of sprinkled bhasma on water), Rekhapurnatava – (particle should occupy the furrows of the finger), Susukshma - (reduced particle size), Niswadatvam or Gata Rasatvam – (tasteless), Nishchandratvam – (lusterless), Apunarbhavatva (non-reformation or non-reproduction of bhasma to original form). Niruttha: in this process in which Abhrak bhasma was treated with silver at high temperature in furnace. The weight of silver should remain unchanged.⁵

(K.N. Shastri (Ed.), Rasatarangini, Hindi commentary (11th ed.), Motilal Banarasi Das, Delhi (2009)Ch 2/53-57])

<u>DISCUSSION AND CONCLUSSION:</u> This incredible herbo-mineral compound is classified as a potent rasayani component and an adaptogen and therefore helps in normalizing stress and anxiety. Being a powerful aphrodisiac, it also improves libido, treats various infertility issues and improves the reproductive health in both men and women. It also promotes cardiac functioning, controls diabetes, treats indigestion, enhances memory, reduces inflammation and thus improves overall stamina and body immunity.

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