A COMPREHENSIVE STUDY OF GORVARA PUTA IN PREPARATION OF RASA BHASMA

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ABSTRACT

Ayurvedic formulations are of three types, Herbal, Mineral and Herbo-Mineral. Of which, Herbo-mineral is prepared either by Khalweeya or by Bhasmeekarana procedures. The quality of Bhasma depends on the number of putas given. Rasa Bhasma is one such kind of a Herbo-mineral preparation which can be obtained by Peta procedure as described in texts of Rasa Shastra. Though there are different procedures mentioned for preparation of Rasa Bhasma, maaraana done with Gorvara puta seems to be an apt way to obtain the final product. Peta is the generalised way of heat application used during the pharmaceutical procedures of Rasa dravyas, where the purified organic Metal/Mineral is converted completely into powder form which can be absorbed easily into the body without causing any ill effects. Different types of Peta have been explained for bhasmeekarana of different metals and minerals. Among them, certain putas have been mentioned where Mandaagni plays a crucial role in Maarana (Incineration). These Mandaagniputas are in use of preparing certain Bhmas like ShilajitBhasma, HaratalaBhasma, GouripashanaBhasma, and PaaradaBhasma. As these drugs are having relatively low boiling and melting points when compared to other dravyas, and are easy to evaporate when exposed to high temperatures, they need a standardized quantum of heat by which they can be transformed into Bhasma. Gorvara puta is one such kind where agni plays a major role in the preparation of Bhasma. So, the present study A Comprehensive Study of Gorvara Puta in Preparation of Rasa Bhasmahas has been under taken.

Keywords: Peta, Mandaagni, Gorvara puta, Rasa Bhasma.

INTRODUCTION

Rasa Shastra, the science of Alchemy, deals mainly with two vaadas known as Lohavaada i.e., conversion of lower metals into Gold and Dehavaada i.e., making the body healthy, disease free and to achieve “Jeevanmukti” by consumption of Bhmas which are made up of purified metals and minerals.

Although there is a reference of making medicines with Loha and other dravyas in Charaka², Sushrutha³ and VagbhataSamhitas⁴ detailed description about Paarada and other
dhatus, their individual sodhana, marana, jaarana, etc., procedures were explained and came to existence widely after 7th century A.D., Bhasmas have been brought into use extensively with all Rasa dhatus especially with Paarada. Vagbhata, the author of Ashhtanga Hridaya has first mentioned about the use of Paarada internally. We can find many numbers of references regarding rasa bhasma in almost all the rasa granthas. Among them, Rasa Chintamani is one such book where we can get more than 20 references of Rasa Bhasma. He has mentioned different procedures for its preparation. In Rasarnava, colours of PaaradaBhasma have been mentioned.

That which indicates the quantum of heat required by rasaadidravyas for their proper pataka (Incineration) is called puta. Bhasmas are peculiar preparations where a drug after undergoing specified Shodhanasamskara (purification process) is further processed with other drugs and is subjected to Maarana (Incineration). It is the process where the original form is completely lost and is transformed reduced into Bhasma (ash) form, which will be possessing all qualities required for a medicine. This Maaritadravya when administered internally, can alleviate the diseases.

**CLASSIFICATION OF PUTA**

Puta is the methodical way of heat application during pharmaceutical procedures of Rasa dravyas. It is the one which indicates the intensity of heat, and number of putas to be given for a Rasa dravya. The main classification of puta has been divided into 2 types:

**PUTANA VIDHI:-**

For a Rasa dravya to get transformed into Bhasma, various steps are needed to be followed for the process of Incineration. They are:-

1. **Dravyasangraha**: collection of raw material.
2. **Shodhana**: Purification i.e., removal of external and internal Physical and Chemical impurities by subjecting the drug to various procedures like Bhavana, Maradana, Nivapa etc., for a specific period of time.
3. **Bhaavana**: Impregnation or trituration along with juice or decoction of certain herbal drugs to facilitate the therapeutic efficacy of drug and for reduction of particles resulting in nullification of physical and toxicological effects of drug.
4. **Chakrikanirmana**: Making the mass into small round flat coin sized structure is made and dried. This facilitates in drying of chakrika and facilitates in uniform spreading of heat.
5. **Samputeekaranana**: After preparing chakrikas, they are kept in a sharava and closed with another sharava and the joint is sealed with mud smeared cloth tightly for 7 times. So that the fire doesn’t enter the sharava and burn the drug.
6. **Putana**: It is the process where Marana of the drug takes place. Various types of putas have been explained for processing different kinds of drugs basing on their melting and boiling points.

**ROLE OF AGNI IN PUTA:**

Agni plays a vital role in the process of bhasmeekarana. In Arka Prakaasa, six types of agni has been explained. They are: Dhumaga, Mandagni, Deepagni, Madhyamaagni, Kharagni, Bhataaagni. Of these six types of agni, much importance and usage has been given to: 1- Mandaagni, 2- Madhyamaagni, 3- Teevaagni.

Mandaagni: it is the temperature required for the drug to attain the boiling point but does not let the drug evaporate. Temperature varies
from 200-250ºc. Depending on the type of the drug used for maarana, the time of agni to be given can be decided.

Madhyamagni: It is the temperature required to cross the boiling point but does not allow the drug to let evaporate. It is used for sublimation of mercury. Temperature varies from 251-450ºc.

Teevragni: It is the temperature required for certain drugs with highest boiling and melting points and Hardness. This helps in bhas-meekarana. Temperature varies from 451-650ºc.

GORVARA PUTA

The term Gorvara or Gobara means Powder of Cow Dung Cakes which is available in the cattle shed. This is used as fuel for preparation in the Maarana of Paarada.

REASON FOR CHOOSING GORVARA PUTA FOR RASA BHASMA:

Paarada is the only metal which is available in liquid state at room temperature and also having low boiling point of 357.5ºc, which if crossed, starts evaporating and there will be no outcome of final product.

For this purpose, a puta method with a low temperature is needed. Gorvara/Gobara puta is one such kind of puta where Gobara (powdered cow dung cakes) is used and the temperature does not exceed 250ºc.

When a Vanya Upala is burnt as such, it starts burning slowly and attains a specific temperature and puts off after a period of time. But when it comes to Gobara, a total of 2 Maanika (768gms) is used. Here there will be even slower and uniform distribution of fire and the heat can be maintained, which facilitates the formation of Bhasma.

Keeping these parameters in consideration, Gorvara puta has been selected for the preparation of Rasa Bhasma.

MATERIALS AND METHOD


Method:

Apamarga Kshara: Freshly collected Apamargapanchanga is taken and dried. It is then burnt completely to obtain ash. This ash is collected into a vessel and 4 times water is added, mixed and left for sublimation of ash. The next day the supernatant water is filtered through a four folded cloth. This process is repeated for 21 times and the collected water is kept on fire and mandagni is given till the water completely evaporates and white colour sediment is obtained. It is then scraped, collected and stored in an air tight container.

Hingulotha Paarada: Ashuddha Hingula with all the graahyalakshanas mentioned was collected, powdered in khalwayantra and nimbuswarasa is added and bhaavana is done till the mixture becomes dry. This process is repeated for times in total. After 7 bhaavanas, Hingula is collected and washed with warm water and dried. This Shodhita Hingula is then taken and placed inside a mud pot and another mud pot is inversely kept on it and the joint is sealed together with mud smeared cloth tightly and dried. This is called Damaruyantra. It is then placed on fire and Madhyamagni is given continuously for 8 hours. The upper portion of the damaruyantra is continuously cooled by placing a wet cloth repeatedly to facilitate the sublimation of Paarada. After completion of heating, and Swangasheetala (self-cooling), the joint is opened and the sublimated Paarada is washed with warm water, collected and further subjected for Shodhana with Lashunakalka, Saindhavalavana for 3 days. Then again on 4th day, it is washed with warm water, filtered and Paarada is collected and stored.

Bhringaraja Swarasa: Freshly collected panchanga of Bhringaraja is washed and crushed well in khalwayantra and is squeezed through a cloth to obtain Swarasa. This is further used for preparation of Rasa Bhasma.

RasaBhasma: A clean mud pot is taken and is filled with Apamargakshara and a pit is made and Paarada is kept inside and closed with ApamargaKshara. It is then filled with BhringarajaSwarasa and closed with sharava and the joint is closed tightly with mud smeared cloth and dried. It is then subjected to Gorvaraputa.
**Gorvaraputa:** A clean round long steel drum is taken and is filled with $\frac{3}{4}$th of Gorvara and Sharava is laced in the middle and remaining $\frac{1}{4}$th is again covered with Gorvara. It is then subjected to Puta for 6 hours on Mandaagni. After swangasheetala, the sharava is taken out, seal is opened and Greyish white coloured RasaBhasma is collected and stored.

**DISCUSSION**

Agni plays a crucial role in Rasa Shastra which helps in the pharmaceutical procedures like Shodhana, Maarana and Gunantaradhana of the drugs. It is very clearly said that a person needs to use his intellect in choosing the puta for maarana of a dravya when there is no mentioning of type of puta to be used. This makes very clear about the role of agni in pharmaceutical procedures. As Agni is very teekshna and can easily attain high temperature, one needs to control it for proper preparation of Medicine. For this purpose, classification of Agni has been done into Mrudu, Madhyama, Teekshna which helps in the transformation of medicine in each stage.

As Paarada is a metal available in liquid state and also having low boiling and melting points, one needs utmost care in its transformation into Bhasma. To achieve this, one needs to regulate and maintain the temperature continuously for a specific period of time. This can be achieved by Mandaagni where the maximum temperature attained will be up to 250°C. For this purpose, Gorvara puta is selected and used in preparation of Rasa Bhasmaas Gorvara (vanotpala which are made into powder) facilitates in regulating, maintaining and distribution of required amount of heat and temperature.

The drugs used in the preparation of RasaBhasma also play a major role in formation of Bhasma. HinigulotthaPaarada has been taken as it is said to have the qualities equal to Ashtasamskaarita Paarada. ApamargaKshara helps in increasing the bubhukshata (digestion capacity) of Paarada there by making it more potent when used internally as a medicine. BhringarajaSwarasa is said among the drugs which helps in Paarada bandha and also helps in Bhasameekarana.

Keeping all this in regard, the process of preparation of RasaBhasma has been under taken.

**CONCLUSION**

Maarana (Incineration) is the most advanced technique explained in Rasa Shastra. This can be achieved by subjecting the drug to a special process called Puta, where the drug under goes the process of transformation and turns into Bhasma. Paarada, being volatile to high temperatures, needs a stable quantum of heat to get transformed into Bhasma. Keeping all these in mind, the present work has been carried out to assist the manufacturing of RasaBhasma.

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