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Standard Manufacturing Procedure of Abhraka Satva Bhasma

	
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ABSTRACT

Several references are found in different texts of *Rasa Shastra* showing prime importance of *Abhraka Satva*. *Abhraka Satva* is able to provide various important factors for the processing of alchemy and it may achieve therapeutic value of high grade. Various pharmaceutical procedures i.e. *Shodhana* (Purification), *Marana* (Incineration), *Satvapatan* (Extraction of metal from mineral) etc. converts deadly toxic mineral, metallic substances into safe and potent therapeutic agent. In *marana* process repeated *bhavana* and *putapaka* treatment divides compound from leaving their compound nature completely and converts it to finest particle and also convert it into organometallic mineral compound. Which when used internally would be absorbed into the system easily. This paper aims to make available SOP of *Abhraka satva-patana* and *satva bhasma*. In this work, I found 10% of *satva* from raw *abhraka*. *Satva patna* and *satva marana* process did by method described in *Rasa Tarangini*.

INTRODUCTION

Rasa Shastra is a pharmaceutical branch of *Ayurveda* mainly deals with the drugs of minerals/metals origin, their characteristics, varieties and processing techniques. It covers the area of collection, preservation, storage of raw material, processing, product characterization, dose determination, safety and efficacy, evaluation, drug development and drug standardization. It increases the potency of medicine by *sanskara i.e. vishesh gunantardhana* (adding or generating special property) makes the medicine durable, makes the medicine Palatable removes the toxic effect of medicine by *shodhana karma*.

The review of *Rasa* literatures reveals that *Rasa Shastra* was developed for two main objectives i.e. *deha* and *loha siddhi*. *Deha siddhi* means transformation of unhealthy body into healthy i.e. strong, healthy and immortal so that persons may live long with healthy state of life and performed auspicious activities to the desired extent and salvation.

The other aspect of *Rasa Shastra* is called *loha siddhi* or the attainment of perfection in preparing noble metals like gold and silver from ordinary metals with the processed mercury. But the practice of this science is limited only to highly adept saints. *Abhraka satva* is not only intended for therapeutic purposes but they are equally useful in mercurial processings.

In our classics, it has been claimed that *Abhrak satva bhasma* is ten times more potent in comparison to *Abhrak Bhasma* in regarding of therapeutic efficacy. *Abhraka satva* was considered the chief material which could make mercury *Pakchhachhina* (cutting the wings/making it thermostable). But *Abhraka satva* alone cannot be consumed by mercury. Hence, a *dwandwa* of *Abhraka* and *Makshika satva* is must and that only can be digested by mercury.

MATERIALS AND METHODS

Raw *Abhraka* was procured from its mines situated at Udaipur, Rajasthan and other allied material i.e. *Gandhaka, Hingulu, Tankan, Sweta musli* were procured from the local market. The whole pharmaceutical work can be divided into three steps:

1. *Satva Patana*

2. *Satva Shodhan & Churnikaran*

3. *Satva Marana*

1. **Satva Patana:**

Shodhana of Abhrak: For *shodhana* Impure *Abhraka* sheets were heated up to red hot on charcoal (approx. 850⁰C) then quench into cow urine. This process was repeated for seven times followed by grinding of *Abhraka* sheets into fine size¹.

Extraction of Abhrak Satva:

¼ part of *suddha tankan* and *kwath* of *musli* was added in *suddha Abhrak Churna* in the measured quantity were mixed thoroughly. Then mix charge was palatised by handballing and kept it in sun rays to make agglomerated material dry. Then these balls were charged into crucible heated in controlled temp furnace (up to 1450⁰C). The crucible was kept for self-cooling and approximately 10% of *Abhrak satva* was obtained².

Pindikaranam: Pieces of *Abhraka satva* were added with *mitra panchaka* and put into crucible thereafter it was heated up to molten stage in furnace and kept for self-cooling. Maximum temperature recorded 780⁰C. Then *pindita satva* was collected in a cotton cloth by breaking the crucible³.

2. *Satva Shodhana & Churnikaran:* Impure *pindita satva* was heated up to red hot and then quenched again and again in *Kanji*. Thereafter it was made powder in *imamdasta*. Now the powder was sieved. (Total quenching 110 times and in between it was powdered and sieved after every 7th quenching). This powder was levigated with *Amalaki* decoction for 3 days followed by roasting with *Goghrita* and thereafter this *bhavita* material was levigated with *Punarnava svaras*, *vasa svarasa* and *Kanji*⁴.

3. *Satva Marana:* *Abhraka satva* was mixed with its half amount of *Kajjali* (equal part of mercury and sulphur) and triturated in *khalva yantra*. Now it was put in *Kanch kupi* (7 *kapadmitti*) and followed by *paka* in *Baluka yantra*. This process was repeated two times. The above said procedure was repeated two times again in *samputa yantra*⁵.

Precautions: *Abhraka* should be powdered well. Crucible should be preheated up to 200-250⁰C for one hour to make it heat resistant. Crucible should be filled up to half level to avoid splitting of material during boiling. Drops of sweat and water should not be mixed with material at the time of boiling to avoid of risk. Tankan should be purified properly otherwise *Abharaka* at the time of melting split out. Wet bamboo should take for mixing of melted material. After *kupi paka*, removal of *kupi* was done very cautiously and after breaking the *kupi*, it must be ensured that no glass particles present in the *bhasma*. *Chakrika* should be uniform in size and shape and dried well before subjected to *puta*.

RESULTS AND DISCUSSION

Four varieties of *Abhraka* have been described in various texts which are based upon colour. *Krishna Vajra Abhraka* is the best variety described in text. Therefore, *Krishna Vajra Abhraka* was procured from its mines situated at Udaipur, Rajasthan for this research work. *Grahya lakshna* of this *Abhraka* is as described in text. Preparation of *Satva bhasma* involved many procedures like *Shodhan of Abhraka*, *Golak Nirman*, *Satvapatan*, *Satva Ekatrikaran* (collection of *satva*), *Satva pindikaran*, *Satva Shodhan*, *Satva Churnikaran*, Preparation of *Kajjali*, Preparation of *Bhasma* in *Baluka yantra*, Preparation of *Bhasma* in *puta yantra*. *Shodhana* of *Abhraka* was carried out as per *Rasa Tarangini*. In *shodhan* process, *Abhraka* was heated up to red hot and quenched in *gomutra* initially with spatula and then in iron pan (*Kadhai*). This process lasted till *Abhraka* got converted in powder form. Now the *Abhraka* powder was grinded to make fine. The *Abhraka* powder was divided into three batches and further whole process was repeated in each three batch same. Thereafter $\frac{1}{4}$ *tankan* (1.25kg) and *musali* (2kg) *kwath* were mixed with 5kg *Abhraka churna* and subsequently form *modaka* and these *modaka* were kept in sun rays to make dry and hard. After three days the final *modaka* were weighed and found 8, 7 and 8.2kg respectively. Then all the charge prepared was put in 10 no crucible of graphite up to half level and this crucible with charged material was subjected to especially designed furnace. The heating material used in the furnace was china coke. Graphite crucible was heated gradually up to 1450⁰C. This peak temperature was given up to 6 hours. After melting and self-cooling for 1 hr the crucible was taken out from furnace and material was poured into the iron pan followed by separation of *satva* with the help of magnet. The *satva* was not in pure form in fact attached slag remained with it. Then *pindikaran* was done because of obtaining the pure *satva*.

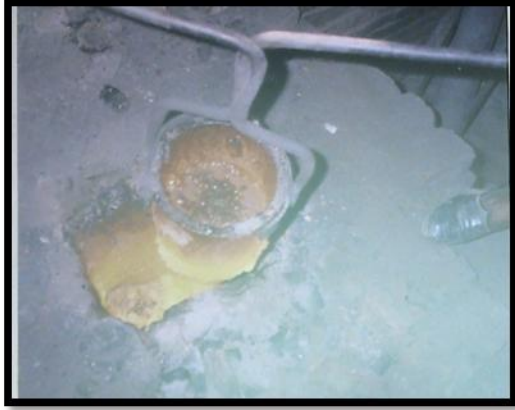
Churnikaran and *shodhana* of *satva* were done just to make the *satva* soft (*mridu*). There are two methods described in *Rasa Tarangini* to prepare *bhasma* of *Abhraka satva*. However, both methods were adopted jointly to make the *Abhraka satva bhasma* more potent therapeutically. In this procedure, firstly *Abhraka satva* was subjected to *Baluka yantra* in two times and then followed by *puta yantra* in two *guja puta*. Colour of the *Abhraka satva bhasma* obtained was light *ishtika varna*.

CONCLUSION

1. Total yield of *satva* was 10% from its raw material.
2. Weight gain in *satva* after *shodhan* was 2.5%.
3. Weight gain in *satva* in *satva bhasm* after *kupi paka* process was 31.66%.
4. No significant weight gain in *satva bhasm* was found after *put paka* process.
5. Colour of the *Abhrak satva bhasma* was light *ishtika varna*.
6. Weight gain after *kupi paka* process may be due to compound formation with the help of *kajjali* and no weight gain in *put paka* process indicates that all compound formation was done in *put paka* process. All *satva* get converted into *Bhasma* form.

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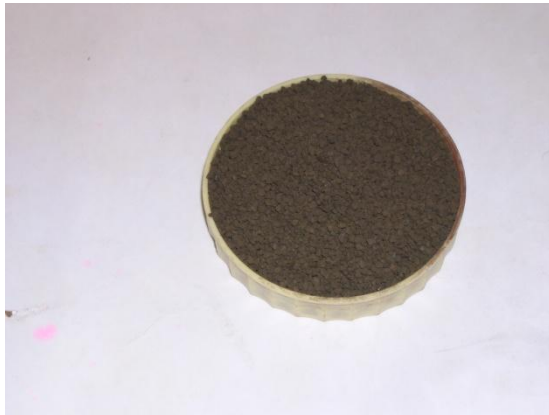
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Photograph 1. Process of Satvapatana



Photograph 2. Extracted Abhraka Satva



Photograph 3. Shodhita Abhraka Satva



Photograph 4. Abhraka Satva bhasma

TABLE 1. SHOWING THE OBSERVATION OF ABHRAK SATVA PATAN

Material	Sample (1)	Sample (2)	Sample (3)
Biotite	5 kg	5 kg	5 kg
Borax	1 kg 250 gm	1 kg 250 gm	1 kg 250 gm
Sweta musli	2 kg	2 kg	2 kg
Water for kwatha	20 lit	20 lit	20 lit
Wt. of the balls	8 kg	7 kg	8.2 kg
Total time in satva patan	6 hour	6 hour	7 hour
Wt. of mitra panchak for pindikaran	100 gm	100 gm	100 gm
Wt. of satva obtained	495 gm	490 gm	500 gm