A Retrospective Study of Ghana Kalpana

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ABSTRACT

Bhaishajya Kalpana is the branch of Ayurveda which primarily deals with different kinds of dosage forms & their therapeutic utility. The Panchavidha Kashaya Kalpana have great importance as they form the primary or basic dosage forms from which other secondary dosage forms are prepared. Ghana Kalpana is the modified form of Kwath Kalpana and is an exclusive contribution of ayurvedic science. Different varieties of Ghana are mentioned in various ayurvedic classics & they are most accepted varieties of ayurvedic dosage forms due to its easy administration, palatability & long shelf life. In this article an attempt has been made to have an understanding regarding the meaning of Ghana, general method of preparation & its various therapeutic indications.

KEYWORDS

Ghana Kalpana, Pharmaceutics, Semisolid
INTRODUCTION

Bhaishajya Kalpana is the branch of Ayurveda which primarily deals with different kinds of dosage forms & their therapeutic utility. Ghana is prepared by reducing the liquid portion of kwath, swarasa etc till it attains semisolid state. These preparations are usually used for internal administration. The history of preparation of Ghana is seen from charaka samhita, may be with single drug or multiple drugs. The main concept behind the Ghana preparation is re-boiling the prepared Kwath, Swarasa etc till its semisolid consistency. In some preparations praksepaka dravyas are added to this semisolid consistency before drying. Different varieties of Ghana are mentioned in various ayurvedic classics and they are one of the most accepted varieties of ayurvedic dosage forms due to its easy administration, palatability and long shelf life.

Definition:

When Kwath, Swarasa, Hima, and Phanta etc are boiled and reduced over mild fire to a semisolid consistency, then it is known as Rasakriya.1

Stages of Ghana kalpana:

1. Phanitakrithi: when rasakriya comes to a form of thicker liquid.
2. Avaleha: when it becomes semisolid.
3. Ghana: when pills can be made out of it.

LITERARY REVIEW

Charaka Samhita:

Rasakriya is solidified form of Swarasa, Kwatha etc2. Preparations involving Rasakriya/Ghana mentioned in charaka are Darvyadi Rasakriya2, Khadiradi vati2, Pippalyadi Rasakriya, Krishnasarparasadi Rasakriya3, Dhatryadi Rasakriya3 and Kritavedhana Kalp4.

Sushruta samhita:

According to Acharya Sushruta, Phanita is prepared by reducing Kwatha to a semisolid consistency. Kwatha is prepared by adding 8 or 16 parts of water; which is further reduced to 1/8th or 1/16th part to form Phanita5. Few Phanita Kalpanas mentioned in Sushruta Samhita are Khadiradi leha6 and Salsaradivarga Kasaya7.

Astanga sangraha/ Hridaya

We find the reference of 3 types of Rasakriya in the context of Anjana Kalpana8 in both the texts which is namely Pinda, Rasakriya and Churna.

Ghana referring in different classics:

In Sharangdhara Samhita, Rasakriya and Ghana is mentioned in Avaleha Kalpanadhyaya of Madhyama Khanda. It defines Rasakriya as the product obtained
after boiling the Kwatha continuously till it attains a semisolid consistency. Few of the preparations which are mentioned are as follows Darvyadi Rasakriya and Babbul Rasakriya.

Acharya Bhavaprakash, Chakradatta and Ayurveda Prakashakara have described Ghana Kalpana in context of Darvyadi Rasakriya or Rasanjana. Acharya Yadavji Trikamji has mentioned about Ghanavatis prepared from single herb in his book Siddha Yoga Sangraha in the context of Guduchi Ghana (Samshamani Vati) for Jwara.

**MATERIALS AND METHODS**

The equipment’s required in the method of preparation of Ghana includes the drug specified in the formulation, a wide mouthed stainless steel vessel, cotton cloth, spatula for mixing the medicine homogenously during preparation.

**General method of preparation:**
- Raw drugs for the preparation are washed and dried properly.
- According to the general method of preparation, 1 part of the drug and 16 parts of water was added which is then boiled and reduced to 1/8th part.
- Depending on the quantity and quality of the drug the ratio of water differs.
- After the reduction process, Kwath is filtered.
- After filtration, the Kwatha is reboiled till it attains semisolid state which is then rolled into Vati.
- It is then preserved in airtight glass jars.

**General precautions during Ghana preparation**
- Kashaya drugs should be coarsely powdered and water should be potable.
- One should be very careful that the reduced drug material does not burn out.
- Continuous stirring towards the end of the preparation is very essential.
- The end product will be very much sticky and one needs to apply ghee to fingers while rolling the pills.

**Dose:**

The dose of Ghana is not clearly mentioned in our classics. In Siddha Yoga Sangraha, in the context of Samshamani Vati, the dose of Ghana is mentioned as 5 to 10 vati of 2 ratti pramana which is to be administered four to five times a day. So the dose of Ghana may be taken as 5-10g per day.

**Anupana:**

Water, milk etc. (according to the disease condition)

**Shelf life:** 1 year
DISCUSSION

Ghana Kalpana, a secondary derivative preparation of Kwath Kalpana, is also one of the extraction methods in which maximum of water soluble as well as a little amount of water insoluble materials are extracted by Kwatha method which is then reheated till it attains solid form. Various references are found in ayurvedic classics for the preparation of Ghana Kalpana along with their method of preparation and consistency. As the active principle of herbal origin drugs varies geographically and seasonally, there is a need to have minimum quantity of active principle or marker compound in the extract for efficacy. Some of the advantages of this Kalpana are reduced dosage, increased shelf life and increased bioavailability. In recent times some modifications are also carried out and a wide range of new formulations are figured from the Panchavidha Kashaya Kalpanas. Swaras, Kalka, kwatha, Hima and Phanta have some drawbacks like inavailability of drug, lesser shelf life, unpalatability, higher dose and chance of contamination. Acharya Yadavji Trikamji has mentioned about Ghanavatis prepared from single herb in his book Siddha Yoga Sangraha in the context of Guduchi Ghana (Samshamani Vati) for Jwara. It is one of the most common dosage form which has been employed in various disorders and is gaining popularity due to its easy administration, palatability and longer shelf life.

CONCLUSION

Ghana Kalpana plays an important role in pharmaceutics of ayurveda, owing to many advantages like easy administration,
palatability, convenient form for dispensing and transporting, to keep the medicine potent for long time and also its quick action. In the current scenario where the availability of drug throughout the year remains a question; Kalpanas with longer shelf life like Ghana will be of great importance. Various researches carried out related to ghana kalpana has proven its efficacy in different clinical conditions.
REFERENCES


10. Sharangadhara, Sharangadhara Samhitha with Dipika commentary of Adhamalla and Gudartha Dipika commentary of Kashirama, edited by


