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Critical Interpretation on Manufacturing Process of *Avalehakalpana*

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ABSTRACT

Introduction

Leha or *avaleha* is an important *ayurvedic* formulation which is in semi solid consistency. It is the most accepted varieties of *ayurvedic* dosage forms because of its easy administration, long shelf life and palatability. *Bhaishajya kalpana* text gives the general method of preparation of *avaleha* but few *avalehas* specified in authoritative books of *ayurveda*, deviate from general method of preparation. Hence a literary search was done to find out the different methods of preparation of *avaleha*.

Materials and Methods

An extensive literary review was done in authentic books of *bhaishajya kalpana* and other books for *avalehas* having different preparatory methods.

Result

In total, ten different methods of preparation of *avaleha* were found. Broadly these methods can be classified as *niragni*(without the use of fire) and *saagni*(with use of fire).

Discussion

The formulations are included in this work, considering the word meaning of *leha* (that which is licked) and the definition of *leha*(reheating of *kwatha* etc).The features of *avaleha siddha lakshana* were also taken in to consideration for the inclusion. The nomenclature in *bhaishajya ratnavali* and AFI also supports the inclusion of some formulations under *avaleha*. Based on ease and convenience of preparation the most suitable method can be adopted.

KEYWORDS

Avaleha, Different methods, *Chyavanprasha*



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INTRODUCTION

Leha or *avaleha* is an important Ayurvedic formulation which is in semi-solid consistency. The term *leha* is derived from 'lih'dhatu meaning that which can be licked¹. Similar meaning is implied by *lihyate anena iti leha*¹. It is also defined as a semisolid dosage form prepared by solidifying *kwatha*, *swarasa*, *hima*, *phanta* etc². It is one among four types of food "ashitha, pita, khadita, leha"³. *Avaleha* is the most accepted varieties of ayurvedic dosage forms because of its easy administration, long shelf life and palatability⁴.

It is generally prepared by heating the *swarasa* or *kashaya* or any other liquid mixed with *guda*(jaggery), *sharkara*(sugar), or *sita*(sugar candy). The mixture is filtered through a clean cloth to get rid of physical impurities and heating is continued till one or two thread consistency is obtained. Ghee is added just before obtaining the thread consistency. Then the vessel is taken out of fire and the fine powders of *prakshepaka dravyas* if any are added and stirred well to get homogenous mixture. When the mass turns cool, honey is added and the *avaleha* is stored in an air tight container⁵.

*Avaleha siddha lakshana*⁶

Properly prepared *avaleha* should fulfill the following tests

1. *Tantummatvam* : Should have thread consistency when pressed between two fingers
2. *Appsumajjathi* : *Avaleha* sinks when put in water
3. *Kharatwa* : Rough to touch
4. *Pidithe mudra* : Finger print seen when pressed between fingers
5. *Gandhavarnarasodhbhava* : Attains the odour, colour and taste of medicinal drugs used

Matra: 1 pala(48gms)

Shelf life: 1 year

It was observed that few *avaleha* like *chaturbhadra avalehika* specified in authoritative books of *Ayurveda*, deviate from above mentioned general method of preparation. Further it is observed that there are few changes in the steps of preparation among the *avaleha*. Hence a literary search was done to find out the different methods of preparation of *avaleha*.

MATERIALS AND METHODS

An extensive literary review was done in different authentic books of *bhaishajya kalpana* and other books for *avalehas* having different preparatory methods. Published review and research articles were also searched in indexed peer reviewed journals.



OBSERVATIONS AND RESULTS

In total, ten different methods of preparation of *avaleha* were found, which are detailed as follows:

1. Fine powders are mixed with honey
2. Fine powders are triturated with ghee
3. Fine powders are triturated with jaggery
4. Rubbing of gold on stone and mixing it with honey
5. Preparation of *kashaya* and reheating it to obtain semisolid mass
6. Extraction of *swarasa*(with discarding the residue) and its *paaka* along with *sharkara/guda/sita*
7. Extraction of *swarasa*(without discarding the residue) and the pulp of the drug obtained after taking *swarasa* is fried with ghee and is used in further processing

8. Preparation of *kashaya* and its *paaka* along with *sharkara/guda/sita*

9. Preparation of *kashaya* and specified drugs are boiled along with *kwatha dravya* in a *pottali*, then the pulp of drug is taken for further processing

10. *Drava dravya* and *churnas* are heated together till it forms a semisolid mass

Broadly these methods can be classified as *niragni*(without the use of fire) and *saagni*(with use of fire).

❖ In *niragni* method (preparation 1-4), the fine powders of the required drugs are mixed along with honey or ghee; or trituration is done with jaggery using a mortar and pestle. Also the *swarnaprasha* given to children in *leha* form is prepared by *niragni* method. Table 1 gives the examples of different *avalehas* prepared by *niragni* method.

Table 1 Different *avaleha* prepared by *niragni* method

Sl no.	AVALEHA	METHOD OF PREPARATION
1	<i>Chaturbadra Avalehika</i> ⁷	Drugs are made into fine powders and mixed with honey and is administered
2	<i>Kalyana Avaleha</i> ⁸	Specified drugs are made into fine powder and trituration is done with ghee using mortar and pestle till <i>leha</i> consistency is obtained
3	<i>Guda pippali</i> ⁹	The drugs are made into fine powders and trituration is done with <i>guda</i> in a <i>khalvayantra</i>
4	<i>Swarna prasha</i> ¹⁰	The gold foil is rubbed on a clean stone with little quantity of water and later it is mixed with honey and ghee and is administered

❖ In *saagni* method(preparation 5-10), the *swarasa* or *kashaya* are treated with *sharkara/guda/sita* till *paakalakshana* is obtained, then the general method of

preparation is followed. Few modifications seen in *saagni* method are listed with examples in table 2.



Table 2 Different *avaleha* prepared by *saagni* method

Sl no.	AVALEHA	METHOD OF PREPARATION
5	<i>Kutajaleha</i> ¹¹	The <i>kashaya</i> is prepared using specified drugs and is filtered and reheated to obtain a semisolid mass, then <i>prakshepakadravya</i> and honey are added
6	<i>Vasaavaleha</i> ¹²	<i>Vasaswarasa</i> is extracted and to one part of <i>swarasa</i> , half part of <i>sita</i> is added, stirred well and filtered to remove physical impurities. Then the filtrate is kept on fire till one thread consistency is obtained. As soon as the consistency is reached, <i>gritha</i> and <i>pippalichurna</i> are added and mixed well. After cooling honey is added, mixed well and stored in an air tight container
7	<i>Kushmanda Avaleha</i> ¹³	The seeds and external skin of <i>kushmanda</i> is removed and <i>kushmanda</i> is grated. Mentioned quantity of it is taken along with water and boiled till the water reduces to half. It is filtered through a cloth and the filtrate is added with specified quantity of sugar and cooked on mild fire till one or two thread consistency. Meanwhile the pulp is dried for sometime in sun and then is fried with ghee till it becomes golden brown. Just before obtaining the thread consistency the fried pulp is added and cooked till <i>avalehasiddhalakshana</i> . Then it is taken out of fire and added with fine powders of other ingredients and mixed well. After cooling, honey is added
8	<i>Dashamula guda</i> ¹⁴	<i>Kwatha</i> is prepared by specified drugs. It is filtered and added with <i>guda</i> and mixed well. Then it is filtered again to remove the physical impurities and the filtrate is taken for <i>paaka</i> . Rest of the procedure is as seen in the general method of preparation
9	<i>Chyavanprash Avaleha</i> ¹⁵	Coarse powder of <i>kwathadravyas</i> are taken in a vessel along with water. The <i>amalaki</i> fruits are tied in cloth and suspended in that vessel and cooked till the water reduces to one eighth. <i>Amalaki</i> bundle is taken and allowed to cool, then the fruits are separated from the seeds, the pulp is crushed and filtered through a cloth to get fiber less pulp. This pulp is fried with ghee till it turns golden brown. <i>Kashaya</i> is filtered and cooked with sugar till one or two thread consistency. Rest of the procedure is as mentioned earlier.
10	<i>Khandakushmanda Avaleha</i> ¹⁶	<i>Kushmandaswarasa</i> , <i>Goksheera</i> , <i>Amalakichurna</i> are taken together in vessel and cooked till a mass is formed. Then to that Sugar and ghee is added and mixed well.

DISCUSSION

The formulations discussed in this article are included considering the word meaning of *leha* (that which is licked) and the definition of *leha* (reheating of *kwatha* etc). There are four features of *avaleha siddha lakshana* specified in the authentic books of *bhaishajya kalpana*. It was noted that all the above formulations fulfill more than two features among the four. The *chaturbhadra* and *kalyana avaleha* is prepared by mixing the fine powders with honey or ghee to obtain lickable

consistency. The final product will attain few features of *avaleha* like sinking in water, thread consistency though not heated. The nomenclature in *bhaishajya rathnavali* also supports the inclusion of these formulations under *avaleha*. *Guda pippali* though, seems like *guda paaka*, is explained under *avaleha* in Ayurvedic Formulary of India. The method of preparation does not require heating, rather is prepared by pounding. The lickable consistency, *apsumajjana*, *anguli mudra* are the features that will be fulfilled by this



kalpana. *Swarnaprasha* once again is in lickable form and is termed as *leha* in *kashyapa samhitha*. The features of this formulation are similar to that of *churna* being mixed with ghee or honey. However the process of manufacturing differs from the prior because of which it is considered separately. All these methods which do not require the source of heating during the process of preparation may not fulfill the expected shelf life of *avaleha*. Among them *guda pippali* however, may show better shelf life due to the preservative action of *guda*.

Other methods of *avaleha* mentioned in this work are processed with fire. Hence a better shelf life can be expected. In method of *vasa avaleha*, after the extraction of *swarasa* the herbal marc is discarded, where as in *kushmanda avaleha* and *chyavanprasha*, even the pulp is used in preparing *avaleha* thus taking the whole drug mass. Due to addition of pulp, there is an additional process been done by frying the marc with ghee. Considerable amount of moisture from the pulp will be dehydrated by this method relatively influencing the shelf life. In *khanda kushmanda avaleha*, deviating from the general method the sugar and ghee are added in the end to obtain *leha* consistency. The heat present in the product will suffice

uniform mixture of the sweetening substance with the formulation.

CONCLUSION

In total ten different methods were found for preparation of *avaleha*. The consistency of the formulation in lickable form is the criterion followed for the inclusion. The features of *avaleha siddha lakshana* were also taken in to consideration for the inclusion. Based on ease and convenience of preparation the most suitable method can be adopted. But it is ideal to follow the exact method explained in authentic texts to obtain a potent final product.



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