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
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 licked\(^1\). 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 etc\(^2\). It is one among four types of food “asitha, pita, khadita, leha”\(^3\). Avaleha is the most accepted varieties of ayurvedic dosage forms because of its easy administration, long shelf life and palatability\(^4\).

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 container\(^5\).

**Avaleha siddha lakshana**\(^6\)

Properly prepared avaleha should fulfill the following tests

1. *Tantumatvam*: 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 shankarat/gudalsita
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 shankarat/gudalsita
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>
<thead>
<tr>
<th>Sl no.</th>
<th>AVALEHA</th>
<th>METHOD OF PREPARATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Chaturbadra Avalehika⁷</td>
<td>Drugs are made into fine powders and mixed with honey and is administered</td>
</tr>
<tr>
<td>2</td>
<td>Kalyana Avaleha⁷</td>
<td>Specified drugs are made into fine powder and trituration is done with ghee using mortar and pestle till leha consistency is obtained</td>
</tr>
<tr>
<td>3</td>
<td>Guda pippali⁹</td>
<td>The drugs are made into fine powders and trituration is done with guda in a khalvayantra</td>
</tr>
<tr>
<td>4</td>
<td>Swarna prasha¹⁰</td>
<td>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</td>
</tr>
</tbody>
</table>

In saagni method(preparation 5-10), the swarasa or kashaya are treated with shankarat/gudalsita 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 saagri method

<table>
<thead>
<tr>
<th>Sl no.</th>
<th>AVALEHA</th>
<th>METHOD OF PREPARATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>Kutajaleha11</td>
<td>The kashaya is prepared using specified drugs and is filtered and reheated to obtain a semisolid mass, then prakshepakadravya and honey are added.</td>
</tr>
<tr>
<td>6</td>
<td>Vasaavaleha12</td>
<td>Vasaswarasa is extracted and to one part of swarasa, half part of sita 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, gritha and pippalichurna are added and mixed well. After cooling honey is added, mixed well and stored in an air tight container.</td>
</tr>
<tr>
<td>7</td>
<td>Kushmanda Avaleha13</td>
<td>The seeds and external skin of kushmanda is removed and kushmanda 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 avalehasiddhalakshana. Then it is taken out of fire and added with fine powders of other ingredients and mixed well. After cooling, honey is added.</td>
</tr>
<tr>
<td>8</td>
<td>Dashamula guda14</td>
<td>Kwatha is prepared by specified drugs. It is filtered and added with guda and mixed well. Then it is filtered again to remove the physical impurities and the filtrate is taken for paaka. Rest of the procedure is as seen in the general method of preparation.</td>
</tr>
<tr>
<td>9</td>
<td>Chyavanprash Avaleha15</td>
<td>Coarse powder of kwathadravyas are taken in a vessel along with water. The amalaki fruits are tied in cloth and suspended in that vessel and cooked till the water reduces to one eighth. Amalaki 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. Kashaya is filtered and cooked with sugar till one or two thread consistency. Rest of the procedure is as mentioned earlier.</td>
</tr>
<tr>
<td>10</td>
<td>Khandakushmanda Avaleha16</td>
<td>Kushmandaswasrasa, Goksheera, Amalakichurna are taken together in vessel and cooked till a mass is formed. Then to that Sugar and ghee is added and mixed well.</td>
</tr>
</tbody>
</table>

**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 kasyapa 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.
REFERENCES