A Review on Guggulu Kalpana (Commiphora Wightii) in Ayurveda

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ABSTRACT

Bhaishajya Kalpana deals with the Basic Ayurvedic pharmaceutics like Panchavidha Kashaya Kalpana and other secondary formulations like Churna, Vati, Guggulu, Sneha and Sandhana Kalpana, among all these Kalpanas now a days Guggulu Kalpana is widely used. It is used not only as medicine but also in religious rituals. The earliest reference of Guggulu is found in Atharvaveda. Guggulu is exudate (Niryasa) of Commiphora wightii (Arn. Bhandari). It is translucent, solid, sticky adhesive, oilo-gum-resine. Guggulu is used as a binding agent and also as a main ingredient in various formulations. When Vati is prepared with Guggulu; known as Guggulu Vati Kalpana. In classical text, there is no separate chapter for Guggulu Kalpana. In Sharangadhara Samhita, Guggulu Kalpana is described under Vati Kalpana. A screening through Brihattrayee revealed that, Guggulu was preferred to be dispensed internally in the form of liquid or semi-liquid or semi-solids. Guggulu in Vati form entered in the field of therapeutics after 11th AD (Chakradutta), because of certain added advantages of solid dosage forms. Later on, Guggulu was widely used in Vati form other than remaining internal forms. Generally, two methods of preparation are found for Guggulu Kalpana. They are Sagni (Paka method) and Niragni (Kuttana method) method. In addition, Adityapaka method and Bhavana was found for preparation. Ayurveda advocates that Guggulu must be administered only after purification i.e. Shodhana. The current trend of Ayurvedic pharmaceuticals mainly shows the use of Guggulu in the form of Gutika or Vati.

Key words: Guggulu, Kalpana, Vati, Commiphora wightii, Ayurvedic pharmaceutics.

INTRODUCTION

Ayurveda is based upon ‘Trisutras’ (Hetu, Linga and Aushadha). Amongst them Aushadha is most important. It is nex to physician in Chatushpada.[ii] Aushadhi Nirmana is divided in two branches

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1. Rasa Shastra 2. Bhaishajya Kalpana. Bhaishajya Kalpana consists of primary formulations like Panchavidha Kashaya Kalpana and other secondary formulations like Churna, Vati, Guggulu, Sneha and Sandhana Kalpana, among all these Kalpanas now a days Guggulu Kalpana is widely used. It is used not only as medicine but also in religious rituals. The earliest reference of Guggulu is found in Atharvaveda. From that time to till now, Guggulu is served to human being as highly valuable medicinal herbal. Guggulu is described as Yakshmanashana in Atharvaveda (A.V.19/38/1). There is categorical description that who has the smell (Gandha) of herb like Guggulu, diseases can’t effect on him. It is quoted in Dravaka Gana and Mitra Panchaka Gana as a reducing agent for different metals and minerals. Guggulu is exudate (Niryasa) of Commiphora wightii (Arn. Bhandari). It is translucent, solid, sticky
adhesive, oilo-gum-resine. Its extracts contains Z- and E- isomers of guggulsterone and its related guggulsterols.\[2\] Guggulu is used as a binding agent and also as a main ingredient in various formulations.

Kalpana is the process through which a substance can be transformed in to the form of medicine according to the need. The Aushadha Kalpana is prepared by different pharmaceutical processing techniques applied to the crude drugs to get the desired therapeutic effect. This processing results in transformation of good pharmacological action to that of substance. These pharmaceutical processes are known as \"Samskaras\". Samskara, one of the essential basic principles of Ayurvedic Pharmaceutics, which are meant for modifying the inherent Naimittika Gunas of Dravya as per the requirement and make the drugs suitable for therapeutic purposes. Alteration in the qualities of a substance can be done with the help of factors like; Toya Sannikarsha, Agni Sannikarsha, Toyagni Sannikarsa, Shaucha, Manthana, Desha, Kala, Vasana, Bhavana, Kala Prakarsha, Bhajana.\[3\] There are many formulations described in Ayurveda from simple Churna of herbal drugs to complex preparations. They all are called as Aushadhi Kalpana.

When Vati is prepared with Guggulu; known as Guggulu Vati Kalpana. In this preparation Guggulu is as a main ingredient (approx 50%). In classical text, there is no separate chapter for Guggulu Kalpana. Maharishi Haritha\[4\] due to wide range of action of Guggulu have mentioned this drug as a separate chapter named as Guggulu Kalpa. The reference of it is mainly found in Sharangadhara Samhita.\[5\] Where he has described Guggulu Kalpa under Vati Kalpana, but because of its popularity, latest Ayurveda texts given separated chapter for Guggulu Kalpana as AFI and Bharat Bhaishajya Ratnakara.

Guggulu Kalpa formation contains two steps:

1. Guggulu Shodhana
2. Preparation of Guggulu Kalpa

1) Guggulu Shodhana

To make it fit for internal use also, it has to undergo the process of Shodhana. Shodhana is the process of removal of physical, chemical impurities and potentiating of the drugs.\[6,7\] There are different media explained in literature for Shodhana of Guggulu.\[8,9\] According to the media of purification the quality and pharmacological properties of Guggulu may vary. Depending on the change in properties the therapeutic effect may also vary.
Table 1: Showing different methods of Guggulu Shodhana.

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Reference</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Swedana (boiling in liquid)</td>
<td>Rasa Tarngini, 24/579-580, Rasajalanidhi, Trutiya Khanda, 8, p.359, Brihata Rosa Raj Sundar, Madhyam Khanda, Shilajita Prakarana.</td>
<td>Guggulu is to be bounded in a cloth and boiled in specified media, till maximum portion of Guggulu enters into liquid. After cooling, the sediment part is to be collected and used as Shuddha Guggulu.</td>
</tr>
<tr>
<td></td>
<td>Anand Kanda, 15th Ullasa/307</td>
<td>Small pieces of Guggulu are to be fried in cow’s Ghee and dissolved in specified liquid in Dolayantra.</td>
</tr>
<tr>
<td>Dipping in Ghee</td>
<td>Dipika Tika on Sharngdhara Samhita, Madhyama Khanda 7/70-81</td>
<td>Guggulu is to be immersed in Ghee for 7 nights.</td>
</tr>
</tbody>
</table>

As the different techniques are described for the Shodhana of Guggulu, like wise various liquid media are also prescribed for the purification of Guggulu like Triphala Kwatha, Dugdha, Guduchi Kwatha, Pancha Tikta Kwatha, Dash Moola Kwatha, Nimba Patra Kwatha with Haridra Churna, Gomutra, Vasa Patra Swarasa, Vasa Patra Kwatha, Nirgundi Patra Swarasa with Haridra Churna, Water, Gogrita in various Samhitas.

2) Preparation of Guggulu Kalpa

Guggulu Kalpas are made with following three methods

1. Somapaka: a) Kuttan b) Mardan
2. Adityapaka
3. Analpaka

1) Somapaka

Heat is not used directly or from sun while preparing Guggulu Kalpa or after preparation of Kalpa that is called as Somapaka. This method has again two types:

a) Kuttana Vidhi: In this, Guggulu is hammered with Goghrita and powders are added simultaneously. When getting uniform mixture, Vati is prepared.

b) Mardana / Bhavana Vidhi: Triphala Guggulu, Bhavaprakasha, Vatarakta 29/213-221. In this formulation, 7 Bhavana of liquid media are given to Guggulu.


In this preparation, Guggulu is mixed with other powders, after that, Dashamoola Kwatha is added to it and drying is done in sun rays. Addition of Kwatha and drying is repeated for 7 times.

3. Analpaka / Sagnipaka Vidhi:

In this, Guggulu is melted in liquid media and heating is done till get proper consistency. Then other powders are mixed in it and make Vati.

Method of preparation of Guggulu Vati

Guggulu Vati prepared by Paka method is as follows:

- First the Guggulu is to be taken and small quantity of water, Kashaya, Swarasa is to be added to dissolve the Guggulu in it.
- It is then heated till it attains the Paka Lakshana and later the fine powder of all the ingredients is to be added and boiled till it attains Paka Lakshana.
- It is then rolled into Vati form with little ghee and dried properly.
- The colour and other characteristics of Guggulu Kalpana vary from preparation to preparation depending upon the ingredients added to the specific formulation

Guggulu Paka Lakshana

The Paka Lakshana of Guggulu can be classified into 2 types,
1. Pakakaleene (during the time of Paka)
- The Paka material sticks strongly to the spoon while stirring.
- It attains three to four thread consistencies.
- It settles down in the bowl of water without spreading.
- It remains very soft and sticky to touch.

2. Pakaanantara (after Paka)
- Desired colour, odour, and taste of the ingredients are to be obtained.
- Finger prints are imparted over the Paka material.

**Siddhi Lakshana**
- Guggulu Paka is similar to Gudapaka, only difference of its ingredients (Guggulu) and in Guggulu Paka, pleasant smell and taste are differed from Gudapaka.
- In Guggulu Kuttana (hammering) method, Guggulu become like Varti as it’s more hammered.

**Preservation:** Prepared Guggulu Kalpas should be kept in air tight glass containers. If sugar, salt or Kshaara is an ingredient, the pills should be kept away from moisture.

**Dose**

**Table 2: Showing references of dose of Guggulu in different classics.**

<table>
<thead>
<tr>
<th>SN</th>
<th>Reference</th>
<th>Matra</th>
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<tbody>
<tr>
<td>1</td>
<td>Astanga Samgraha, Uttartantra 49/162</td>
<td>Up to 1 Tula (100 Pala) must not take more than 1 Pala in a single dose.</td>
</tr>
<tr>
<td>2</td>
<td>Aananda Kanda, 15th Ullasa/310</td>
<td>1 Nishka (3 g.) to 1 Karsha (10 g.) daily</td>
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<tr>
<td>3</td>
<td>Harita Samhita, Kalpa Sthana 5/19</td>
<td>1 Karsha (10g.) to 1 Pala (48g.)</td>
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<td>4</td>
<td>AFI, Vol 1, page no. 58</td>
<td>2-4 g.</td>
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</tbody>
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**Anupana**
- It can be given along with Go-Dugdha (cow’s milk), Jala (water) or liquid preparation like Triphala Kwath, Darvi Kwatha, Patol Kwatha etc. according to the disease.
- Anupana used according to Rutu explained in Sushruta Samhita.[12]
- In Varsha and Grisha : Ghrita
- In Sharad and Vasant : Triphala Kwatha
- In Hemant and Shishira : Gomutra

**Shelf Life**

Pills made of plant drugs, when kept in air tight containers, can be used upto two years. Pills containing minerals can be used for indefinite period as mention in the Sharangadhara Samhita, Vati made from the plant drugs when kept in air tight container can be used up to the one year. Pills / Vatis should not lose its original colour, smell, taste and form.

**Apathya**

During the administration of Guggulu following things should be avoided;

Amla (sour) Dravya, Tikshna (pungent) Veeryadravya, Ajirna (dyspepsia), Vyavaya (sexual indulgence), Shrama (fatigue), Madya (alcohol), Krodha (anger) all should be avoided during the administration of Guggulu.[13]

**Ati Matra Sevana Vikara**

Long term and higher dose administration of Guggulu may lead To Timira (blindness), Vadanshosha (dryness of mouth), Klibata (impotency), Karshya (emaciation), Moha (delusion), Samal Shithil Bhava (diarrhoea), Deha Raukshya (dryness of skin) etc.[14]


**DISCUSSION**

Historically the Guggulu has been evolved as Amruta (nectar) for replenishing the lost Bala (strength) of Devathas (gods) in Devaasura Sangrama (battle of gods and demons) and it has been used as a good fumigating agent in olden days. A screening through Brihattrayee revealed that, Guggulu was preferred to be dispensed internally in the form of liquid or semi-liquid or semi-solids. Perhaps, it may be because of disintegration problem with Guggulu was known by seers.

**Table 3: Different doses forms of Guggulu in various texts**

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<td>Lepa/Pra deha</td>
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<td>12</td>
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<td>01</td>
<td>01</td>
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<td>Dhoopana</td>
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<td>Ghrita</td>
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<td>Gutika</td>
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<td>48</td>
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<td>Churna</td>
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<td>Kwathara</td>
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<td>07</td>
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<tr>
<td>Asava/chukra</td>
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<td>02</td>
<td>01</td>
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<td>Nasya</td>
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Guggulu in Vati form entered in the field of therapeutics after 11th AD (Chakradutta), because of certain added advantages of solid dosage forms. Later on, Guggulu was widely used in Vati form other than remaining internal forms. It may be due to good binding capacity of gum and also Yogavahi nature of drug which increases efficacy of formulation.

Generally, two methods of preparation are found for Guggulu Kalpana. They are Sagni (Paka method) and Niragni (Kuttana) method. In addition, Adityapaka method and Bhavana was found for preparation. Ayurveda advocates that Guggulu must be administered only after purification i.e. Shodhana. The Guggulu has many media for its purification and the specific Dravya used for its purification enhance the medicinal property of Guggulu; it increases its therapeutic utility also detoxify it, thus making safer for human consumption. The Guggulu Kalpana is a very important formulation where the drug augments the formulations with the other drugs in it without losing its potency and it acts effectively in treating the diseases.

The Guggulu when modified into different formulation like Churna, Ghruta, Avaleha etc. can also be used in treating many diseases along with the different combination of a single drugs. With variation in Anupana, Guggulu Kalpana will also be beneficial in treating many diseases as the mode of action depends on the type of Anupana (adjuvant) used. The Guggulu Kalpana is indicated in almost all the Strotovikaras and also a number of research works have been proved the wide range of action of Guggulu. The challenge in this venture is the genuinity of raw drug Guggulu and the media of Shodhana selected.

**CONCLUSION**

Now a days in Ayurvedic pharmaceuticals Guggulu is mainly used in the form of Vati or Gutika only. But in
classics reference of its use in different dosage forms like Churna, Asava etc. are found. But It is mainly used in the form of Vati because of its good binding property and increased therapeutic action. The Guggulu Kalpana in particular is generally influenced by Sharangadhara Samhita. The current trend of Ayurvedic pharmaceuticals mainly shows the use of Guggulu in the form of Gutika or Vati. Thus it can be said that due to its wide of utility the Guggulu Kalpana is gaining popularity in recent days. And also studies have revealed the therapeutic efficacy of various Guggulu Kalpana. The Guggulu Kalpana should be understood and pronounced in detail with a physicians and point for better results in treatment of diseases. As Guggulu acts on Rosa, Rakta etc. all Saptadhatu as mention in Samhitas. According to Srotas where we need action of Guggulu the drug which are useful on that Srotas should be used mixed with Guggulu. In this way we can use the various Guggulu Kalpas on various diseases.

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