

Methods of *Guggulu Shodhana* in *Ayurveda* – A Review

Review Article

Vyas Kruti Y^{1*}, Kinnari Dhruve², Prajapati PK³

1. Ph.D Scholar, 3. HOD, Dept. of Rasashastra & Bhaishajya Kalpana,
I.P.G.T. & R.A., Gujarat Ayurved University, Jamnagar-361008
2. Ayurvedic Practitioner, Pune.

Abstract

Guggulu, an exudate of *Commiphora wightii*, (Arn) Bhandari, is one of the most important drug used since vedic period. Nowadays, *Guggulu* based formulations are very popular in Ayurveda practice. Though *Guggulu* is plant exudate, many a times associated with some external impurities. Hence, purification of crude *Guggulu* becomes necessary before its internal use. *Shodhana* (purification) is a process by which one can make material effective, nontoxic, suitable and fit for therapeutic purposes. Classics gave different methods and medias for *Guggulu Shodhana*. But the information is scattered. In current study, an attempt has been made to compile different *Guggulu shodhana* methods.

Key words: *Guggulu*, *Commiphora wightii*, *Shodhana*

Introduction

A perfect science is that, which comprises all aspects related to particular subject. Ayurveda is such a science related to Medical stream. Acharya Charaka said that correct medicine is the one which while curing diseases does not provoke the manifestation of other diseases. (1) To fulfil this concept, *shodhana* (purification), *marana* (incineration), *bhavana* (levigation), *mardana* (grinding), etc procedures are described in classics. *Shodhana* is a process of purification and detoxification by which physical and chemical blemishes and toxic materials are eliminated and substances are subjected for further processing. (2)

Guggulu (*Commiphora wightii*,

(Arn) Bhandari) is well known in Ayurveda. It is used since time immemorial, during vedic period it is used for *dhupana* (3) (Fumigation), while in the period of Charaka and Sushruta it is used externally as well as internally. In Sushruta Samhita, it is described that new *Guggulu* increases the bulk of body (*Brimhana* property) and old one reduce the bulk and weight of body (*Lekhana* property). (4) Vagbhatta prescribed *Guggulu* as a most important drug for *Vata Vyadhi* (5) (Neurological disorders) and *Medoroga* (6) (Obesity). It is increasingly used to treat conditions like *Kustha* (skin diseases), *Medoroga* (lipid disorders), *Aamavata* (rheumatoid arthritis), *Sandhigata Vata* (osteoarthritis), *Gulma* (Abdominal lump), *Shotha* (odema) etc. (7)

Classics advocates to use purified *Guggulu* in therapeutics. Adverse effects are associated with crude gum *Guggulu*. (8) Studies also reported gastric irritancy reduced found to be with purified *Guggulu*. (9) Pharmacological action is found to be increased after *shodhana* of *Guggulu*. (10) As *shodhana* is an

*Corresponding Author:

Vyas Kruti Y

Ph.D Scholar,

Department of Rasa Shastra and
Bhaishajya Kalpana, IPGT & RA,

Gujarat Ayurved University, Jamnagar

E-mail: vyas_krt@yahoo.co.in

Ph.No: +91-9426393726

important procedure for *Guggulu*, this review is an effort to compile information of *Guggulu shodhana*.

Need of *guggulu shodhana*

As *Guggulu* is an exudate, external impurities in the form of dust, dry leaves and other foreign materials are accepted in *Guggulu*. (11) After purification, the herb becomes safer and more effective for use studies also reported reduced toxicity with purified *Guggulu*. (12)

Shodhana methods

Screening of Ayurvedic literature revealed four methods of *Guggulu Shodhana*. Often, crude *Guggulu* is advocated to dissolve in specified liquids and filter through cotton fabric in *shodhana* process. All these procedures are placed at Table-1.

Media for *guggulu shodhana*

Fourteen media found in context of *Guggulu shodhana*. *Triphala kwatha* (Decoction of *Triphala*) was commonly used. Only *Bheshaja samhita* mentioned *Guggulu shodhana* in presence of water [table-2].

Despite of this, there are some references found about *Guggulu* preparation which includes *shodhana* procedure also. Almost all classics, after 11th century, *Guggulu shodhana* was given under method of preparation of *Kaishora Guggulu*. Some other references of *Guggulu* formulation which includes specific media for that particular formulation are placed at table-3.

Discussion

Guggulu is widely used in many ayurvedic medicinal preparations. To refer a few preparations with *Guggulu* as a major ingredient are *Yogaraja Guggulu*, *Simhanada Guggulu*, *Trayodashanga Guggulu*, *Triphala Guggulu*, *Laksha Guggulu*, *Vatari Guggulu*, *Gokshuradi Guggulu*, etc. (13) It has been mentioned

that administration of raw *Guggulu* may sometimes lead to skin rashes, irregular menstruation, diarrhoea, headache, mild nausea, and with very high doses, liver toxicity. (14) As raw *Guggulu* cannot be used directly, *Guggulu* preparations started with purification of *Guggulu*.

Purification process for *Guggulu* was not described in *Charaka samhita* and *sushruta samhita*. First reference regarding *Guggulu Shodhana* is found in *Harita Samhita* that it should be dissolved *Guggulu* in certain media and filtering it to remove physical and chemical impurities. (15) The term *Shuddha* (purified) *Guggulu* (16) as used in *Ashthanga Hridaya* for the first time without *Shodhana* method. Purification method is described by *Chakradatta* (11th century) as a part of preparation of *Kaishora Guggulu Vati*. (17) Total 4 methods are found for *Guggulu Shodhana*. *Dolayantra* method was firstly described in *Rasa Tarangini*. (18) *Adhamalla* given *Nimmajana* method, in which *Guggulu* is dipped in *Ghrita* for 7 days. (19) *Shodhana* in *Dolayantra* is reported to be inconvenient, yield less, require more liquid media to keep *pottali* immersed and difficult to completely dry obtained material. (20) Hence, commercially *Guggulu shodhana* is done by dissolving method.

Many media have been described for *Guggulu Shodhana* i.e. *Godughdha*, *Gomutra*, *Triphala Kwatha*, *Guduchi Kwatha* etc. Among them, maximum references are found for *Triphala Kwatha*. Seers have given a free hand to choose needful liquid depending on the desired therapeutic effect. *Kwathas* of *Guduchi* and *Triphala* were preferred in designing formulation of *Vatarakta* (Gout). *Triphala* and other *Vatahara* drugs were used for formulation indicating in *Vatavyadhi*. The study demonstrated purification effect in experimental animals. (21)

Media used in the process of *shodhana* has very important role in either

breaking down or destroying unwanted chemical constituents. The heat treatment (constant boiling) to the drug in a particular media for a particular duration has role in the modification of the chemical constituents etc. (22) Media has an impact on yield and also on disintegration time of pills prepared. Studies shows that *Shodhana* of *Guggulu* performed by *Triphala Kwatha* gets more yield than the *Shodhana* done by *Gomutra* (23) while pills prepared with *Gomutra shodhita Guggulu* have lesser disintegration time. (13)

The oleo-gum-resin of the *Guggulu* is a very complex mixture of gum, minerals, essential oils, terpenes, sterols, ferrulates, flavanones, and sterones, several other unknown compounds have also been isolated. (24) Resins are polyterpenes and their acid derivatives. Resins are very complex chemical compounds and are soluble in organic solvents. They do not have affinity for water. The less soluble resins can be made to dissolve by a process known as 'running' or sweating. (25) The *Guggulu* yields two fractions upon ethyl acetate extraction. The ethyl acetate-soluble fraction contains 45% of the gum resin. The insoluble fraction consists of the carbohydrate gum, which is about 55% of the gum resin. The bioactive components have been found in the ethyl acetate-soluble fraction, whereas the insoluble carbohydrate fraction is devoid of any hypolipidemic effects. (26) While Ayurvedic *shodhana* process indicates the water extract of *Guggulu*, where gum is soluble and oleo resin is insoluble in water. So it may be said that ethyl acetate extraction cannot be correlate with Ayurvedic procedure.

During purification Method, straining is described in most of the methods for *shodhana* of *Guggulu*. It may be inferred external impurities and insoluble aqueous part will be removed by staining method. The process may be

understood that gum of *Guggulu* is very sticky in nature; it needs external force for straining in the liquid media. During moderate heating, some molecules of gum are separated; resin part is heavier than water so during pressing some part of resin also comes in the liquid media, and shows its effect. Resin also comes during the procedure of rubbing. Thus, the properties of liquid media are imbibed in the soluble gum part of *Guggulu* and increase the potency of soluble part of *Guggulu*.

In recent era, Due to its easy availability and more yields, *Triphala Kwatha* is used for *shodhana* process in pharmacy. Water is also used for initial *shodhana* process to remove physical impurities.

Conclusion

Administration of raw *Guggulu* may settle in inconveniences, it should be used after proper *shodhana*. First reference regarding *Guggulu shodhana* is found in *Harita Samhita* and later in *Chakradatta*. Various research works proved therapeutic importance of *shodhita Guggulu*. There are four methods for *Guggulu shodhana*. As *shodhana* in *dolayantra* has certain difficulties, commercially *Guggulu shodhana* is being done by dissolving method. *Godughdha*, *Gomutra*, *Triphala Kwatha*, *Guduchi Kwatha* are common and mostly used medias described for *Guggulu Shodhana*.

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Tables:

Table -1: Different *Guggulu Shodhana* methods given in classics

Sr. no.	Procedure	References	Method
1	Dissolve in liquid and filtering	<ul style="list-style-type: none"> • Harita Samhita, Kalpasthana-5/9 • Rasa Ratnakara, Rasa-khanda, Upadesh-10/78 • Rasendra Sara Sangraha-1/402 • Gada Nigraha, Rasayana, <i>Guggulu kalpa</i> /253 • Bruhat Nighantu Ratnakara, Guna Dosha Prakarana/73 • Rasajalanidhi, Trutiya khanda/8, p.359 • Brihata Rasa Raj Sundar, Madhyam khanda, Shilajita prakarana • Bharata Bhaishajya Ratnakara 1322 	<i>Guggulu</i> is dissolved in liquid media by heating. After total dissolution, it is filtered through cloth and dried in hot sun. (<i>Chanda Aatapa</i>). The dried drug is to be added with Ghee to prepare to soft mass.
2	<i>Swedana</i> (boiling in liquid)	<ul style="list-style-type: none"> • Ras Tarngini, 24/579-580, • Rasajalanidhi, Trutiya khanda, 8, p.359 • Brihata Rasa Raj sundar, madhyam khanda, Shilajita Prakarana, 	<i>Guggulu</i> is to be bounded in a cloth and boiled in specified media, till maximum portion of <i>Guggulu</i> enters into liquid. After cooling, the sediment part is to be collected and used as <i>Shuddha Guggulu</i> .

3	Swedana and frying in Ghee	<ul style="list-style-type: none"> Anand kanda, 15th Ullasa/307 	Small pieces of <i>Guggulu</i> are to be fried in cow's Ghee and dissolved in specified liquid in <i>dolayantra</i> .
4	Dipping in Ghee	<ul style="list-style-type: none"> Dipika tika on Sharngdhara Samhita, Madhyama Khanda 7/70-81 	<i>Guggulu</i> in to be immersed in <i>Ghee</i> for 7 nights.

Table-2: Different media for *Guggulu shodhana*:

Sr. No	Media	References
1	<i>Guduchi Kwatha</i>	<ul style="list-style-type: none"> Rasendra Sara Sangraha 1/384 Ayurveda Sara Sangraha P. 237 Rasajala Nidhi ,trutiya khanda,8,p.359
2	<i>Triphala Kwatha</i>	<ul style="list-style-type: none"> Rasendra Sara Sangraha 1/384 Ayurveda Sara Sangraha P. 237 RasajalaNidhi trutiya khanda,8,p.359
3	<i>Godugdha</i>	<ul style="list-style-type: none"> Ras Tarangini – 24/579-580 RasajalaNidhi trutiya khanda,8,p.359
4	<i>Pancha Tikta Kwatha</i>	<ul style="list-style-type: none"> Ananda Kanda Prathamollasa 322-323
5	<i>Dasha Moola Kwatha</i>	<ul style="list-style-type: none"> Ras Ratnakar Upa 10 RasajalaNidhi ,trutiya khanda,8,p.359
6	<i>Nimba Patra Kwatha With Haridra Churna</i>	<ul style="list-style-type: none"> A.F.I. 1st Edition P. 54
7	<i>Gomutra</i>	<ul style="list-style-type: none"> Vaidya Yoga Ratnavali Brihat Rasaraj Sundara, Madhyam Khanda, Shilajatu Prakarana
8	<i>Vasa Patra Swarasa</i>	<ul style="list-style-type: none"> A.F.I. 1st Edition P. 54
9	<i>Vasa Patra Kwatha</i>	<ul style="list-style-type: none"> A.F.I. 1st Edition P. 54
10	<i>Nirgundi Patra Swaras With Haridra Churna</i>	<ul style="list-style-type: none"> A.F.I. 1st Edition P. 54
11	Water	<ul style="list-style-type: none"> Bheshajya Samhita, Shodhana Prakarana
12	<i>Gogrita</i>	<ul style="list-style-type: none"> Ananda Kanda, 153 Ullasa/305-312 Dipika Tika On Sharngdhara Samhita, Madhyama Khanda 7/70-81
13	<i>Asthishrinkhala Swarasa</i>	<ul style="list-style-type: none"> Rasayogasadara, (645) Vranantaka <i>Guggulu</i>/3115-3119,
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Table-3: Specific media for preparation of different *Guggulu* Formulation

No	Formulation	Media	Indication	Reference
1	<i>Saptavishatika Guggulu</i>	<i>Trikatu etc 24 drugs</i>	<i>Kushtha</i>	Gadanigraha, Prayoga Khanda-4/307-315
2	<i>Kaishora Guggulu</i>	<i>Guduchi + triphala kwaatha</i>	<i>Vatarakta</i>	Gadanigraha, Prayoga Khanda-4/338-347

3	<i>Triphaladya Guggulu</i>	<i>Triphala kwatha</i>	<i>Vatarakta, kushta, shivtra, gulma etc</i>	Gadanigraha, Pra.Kha.4/348-351
4	<i>Kanshakho Guggulu</i>	<i>Triphala kwatha</i>	<i>Ghridhasi</i>	Gadanigraha, Prayoga Khanda-4/352-357
5	<i>Kanthadika gutika</i>	<i>Guduchi kwatha</i>	<i>Vatarakta</i>	Gadanigraha, Prayoga Khanda-4/379-386
6	<i>Amrutadi Guggulu</i>	<i>Triphala+ Guduchi+punarnava</i>	<i>Vatarakta</i>	Gadanigraha, Kayachikitsa Khanda-20/52
7	<i>Gokshuradi Guggulu</i>	<i>Gokshura kwatha</i>	<i>Mutrakrichha</i>	Shangdhara Samhita, Ma.Kha.7/84-87
8	<i>Pathyadi Guggulu dwitiya</i>	<i>Triphala</i>	<i>Vatavyadhi</i>	Bhavaprakasha 24/145-150
9	<i>Abhayadi Guggulu</i>	<i>Abhaya etc 11 drugs</i>	<i>Snayau-mashtiskaroga</i>	Bhaishajya Ratnavali, 101/18-22
10	<i>Amritadi Guggulu Dwitiya</i>	<i>Guduchi + dashamoola+triphal +patha etc 6 drugs</i>	<i>Kushtha</i>	Bhaishajya Ratnavali, .54/222-227
11	<i>Triphaladi Guggulu</i>	<i>Triphal+trivrutt+dantimoola+nilini+a ragvadha</i>	<i>Urusthambha, gandamala</i>	Gadanigraha, Pra.Kha.4/358-364
12	<i>Nimbadi Guggulu</i>	<i>Nimba tvak+ patola+vasa+triphal a</i>	<i>Shiroroga</i>	Brihat Nighantu Raatnakara, 6 th Part, Shiroroga, Pg.No.-398
13	<i>Mahishakhyo Guggulu</i>	<i>Guduchi+triphal</i>	<i>Vatarakta</i>	Brihat Nighantu Raatnakara, 5 th Part, Vatavyadhi, Pg.No.-582
14	<i>Vyadhishardulo Guggulu</i>	<i>Triphala+ Sarshapa taila</i>	<i>Aamavata</i>	Bhaishajya Ratnavali, 29/172-180
15	<i>Shadashiti Guggulu</i>	<i>Shat katuka kwatha</i>	<i>Vatavyadhi</i>	Yogaratanakara, Purvardha, Vatavyadhi Pg-529
16	<i>Simhanada Guggulu Pratham</i>	<i>Triphala etc 18 drugs</i>	<i>Shotha, udara, pliha, n adivrana</i>	Yogachintamani, Ma./, 7
17	<i>Simhanada Guggulu Dwitiya</i>	<i>Triphala kwatha</i>	<i>Aamavata</i>	Brihat Yoga Tarangini, Taranga-93
