

PHARMACEUTICAL STUDY OF GAIRIKADYA MALAHARA

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ABSTRACT

Rasa Shastra is a specialized branch of *Ayurveda* in which certain minerals and metals are used for the treatment. These minerals and metals are subjected to various purificatory and incineration processes to remove the impurities/toxicity and make it fit for therapeutic purpose. *Rasa oushadis* are formulated in such a way that even in a small dose, within a short time, without causing any discomfort, they maintain the equilibrium of the vitiated *dosha*. *Malahara kalpana* is one among the *Bahya kalpa*. *Gairikadya Malahara* is one such formulation mentioned in *Rasa Tarangini*. *Gairikadya Malahara* contains *Shuddha Gairika*, *Haridra*, *Sindhura* and *Siktha taila*. The pharmaceutical procedures used in the study are *Shodhana*, *Bhavana*, *Churna nirmana*, preparation of *Siktha taila* and preparation of *Gairikadya Malahara*. Therefore, the present study entitled “The Pharmaceutical study of *Gairikadya Malahara*” is undertaken.

KEYWORDS: *Garikadya Malahara*, *Shodhana*, *Bhavana*, *Churna nirmana*, *Siktha taila*.

INTRODUCTION

Rasa Shastra means *Ayurvedic* Pharmaceutics and as such it deals mainly with the drugs of mineral origin, their varieties, characteristics, processing techniques, properties and their therapeutic uses along with the descriptions of various apparatus, different kinds of furnaces, heating devices and heating schedules. *Bhaishajya Kalpana* is composed of two words, *Bhaishajya*- Drug and *Kalpana*- Processing. Processing means *samskara*. The pharmaceutical procedure of any drug involves various steps starting from identification and collection of authentic raw material, application of standardized processing techniques and production of

quality drug, packing and storage of produced drugs. (Ex: *Churna*, *Vati*, *Guggulu*, *Taila*, *Ghritha*, *Avaleha*, *lepa* etc.). *Rasa Shastra* and *Bhaishajya Kalpana* basically deals with the preparation of *Ayurvedic* medicines using Herbo-mineral drugs. *Gairikadya Malahara* is one such Herbo- mineral formulation mentioned in *Rasa Tarangini- Misralohadi Vignaniya Taranga* 22nd chapter 30-32 *Sloka* for external application which contains *Shuddha Gairika*, *Haridra*, *Sindhura* and *Siktha taila*^[1] for the treatment of *Dusta Vrana*.

S.No	Ingredients	Quantity
1.	<i>Shuddha Gairika</i>	1 Tola (12g)
2.	<i>Haridra churna</i>	1 Tola (12g)
3.	<i>Sindhura</i>	1 Masha (1g)
4.	<i>Siktha taila</i>	3 Karsha (36g)

AIMS AND OBJECTIVES

Pharmaceutical standardization of various steps involved in the preparation of *Gairikadya Malahara*.

Collection of raw drugs

Gairika, *Haridra*, *Sindhura*, *Siktha* and *Tila taila* are collected from the Tirupati local market.

MATERIALS AND METHODS

The preparation of *Gairikadya Malahara* is done in P.G Department of *Rasa Shastra* and *Bhaishajya Kalpana*, S.V Ayurvedic College, T.T.D, Tirupati.

THE ENTIRE PREPARATION IS CARRIED OUT IN 3 STAGES

Stage 1

- *Gairika shodhana*^[2]
- *Sindhura shodhana*^[3]

Stage 2

- *Churna nirmana* of *Haridra*^[4]

Stage 3

- Preparation of *Siktha taila*^[5]
- Preparation of *Gairikadya Malahara*

GAIRIKADYA MALAHARA PREPARATION**1. Gairika Shodhana**

- ✓ *Gairika* is taken in a clean *khalwa yantra* and pounded to make fine powder.
- ✓ The fine powder of *Gairika* is taken in a clean iron vessel and placed over mildfire.
- ✓ It is added with sufficient quantity of Cow's ghee and fried properly.

2. Sindhura shodhana

- ✓ *Sindhura* is taken in a *khalwayantra*.
- ✓ It is added with sufficient quantity of *Ardraka swarasa* and *Matulunga swarasa*.
- ✓ Trituration is done for 3 days.

3. Preparation of Haridra churna

- ✓ Rhizome of *Haridra* is taken in a clean *khalwa yantra* and pounded.
- ✓ Pounded *Haridra* powder is sieved through a cloth to get very fine powder.

4. Preparation of Siktha taila

- ✓ *Tila taila* is taken in a clean stainless-steel vessel and placed over mild fire.
- ✓ It is heated until foam starts appearing.
- ✓ 1part of bee wax is added to 6 parts of *tila taila*.
- ✓ When the wax completely melts in oil, it is filtered to another clean vessel.
- ✓ *Siktha taila* is obtained.

5. Preparation of Gairikadya Malahara

- ✓ *Siktha taila* is taken in a clean *Khalwa yantra* when it is warm.
- ✓ To this *Siktha taila* add the fine powder of *Shuddha Gairika*, *Haridra* and *Shuddha Sindhura* and stirred well to form a homogenous mixture.
- ✓ After self-cooling it attains semi-solid consistency and *Gairikadya Malahara* isobtained. It is preserved in wide mouthed air tight container.

Images showing Pharmaceutical procedure**Images showing Shodhana of Sindhura***Ashuddha Sindhura**Ardraka & Matulunga Svarasa**Adding Svarasa to Sindhura for Bhavana*



Shuddha Sindhura

Images showing *Haridra churna*



Haridra Khanda



Haridra Churna

Images showing *Shodhana* of *Gairika*



Ashuddha Gairika



Ghrita in an iron pan



Ghrita Barjana



Shuddha Gairika

Images showing *Siktha Taila* & *Gairikadya Malahara* Preparation



Siktha



Siktha added to Tilataila



Filtration of Siktha taila



Siktha taila



Adding Haridra, Shuddha Sindhura and Gairika



Trituration after adding



After trituration



Gairikadya Malahara

RESULTS

Table 1: Showing the result of *Shodhana* of *Sindhura*.

Initial weight	Final weight	Gain in weight	Gain in weight %
500 g	510g	10 g	2%

Table 2: Showing the result of preparation of *Haridra churna*.

Initial weight	Final weight	Loss in weight	Loss in %
500g	480g	20 g	4%

Table 3: Showing the result of *Shodhana* of *Gairika*.

Initial weight	Final weight	Weight gain	Weight gain in %
100g	120 g	20 g	20%

DISCUSSION

The pharmaceutical procedures adopted in this study are *Shodhana- Bharjana, Bhavana, Churna nirmana, Siktha taila* preparation and preparation of *Gairikadya Malahara*.

Shodhana^[6]

It is the process done to remove the impurities present in a drug by adopting procedures like triturating, boiling in liquids etc., using the drugs advocated by the Classics. *Shodhana* process is not a mere chemical purification where the purity percentage of the material becomes increased. It is believed that *Shodhana* is such a process in which addition and separation of certain materials both simultaneously takes place. Some soluble, volatile and inflammable materials are removed and at the same time certain materials are being added from the substances taken for processing and also from the environment.

Example: *Gairika Shodhana* (Media used is Cow's *Ghee* & Method adopted is *Bharjana*)

Observations of *GAIRIKA SHODHANA*

Fumes appeared while *Ghrita Bharjana*. The weight of *Gairika* is increased after *Ghrita Bharjana* and it is turned from **brown to dark brown** colour. When Red-ochre is roasted with ghee, ferrous iron is converted to ferric form.^[7]

Bhavana^[8]

The process of soaking the powders of metals, minerals etc., in specific liquids and grounding till it completely becomes dry is known as *Bhavana*.

In *Ayurvedic* literature, two methods of *Bhavana* are described.

1. Staged levigation with particular liquid media
2. Soaking with specific liquid.

Liquid media is an essential material component of *Bhavana*.

Quantity of Bhavana dravya^[9]

For the purpose of *bhavana* the quantity of *drava dravya* i.e. liquid to be added in the *Bhavya dravya* should be such that it should sufficiently soak the *Bhavya dravya*.

Importance of Bhavana

- Particle size is reduced.
- Impregnation of qualities of *bhavana dravya* to *bhavya dravya*.
- Potency of the drug is enhanced.^[10]

Observations of SINDHURA BHAVANA

After *Sindhura bhavana* there is **gain in weight** (because the contents of *Drava dravya* are impregnated into the *Bhavya dravya*) & **colour change** from Orange to Reddish orange.

CHURNA NIRMANA

Churna nirmana was done for *Haridra*, loss in weight is due to spillage while pounding and during filtration.

Base material for the preparation of *Malahara* may contain *Siktha/Taila/Ghrita/Sarja rasa* etc, Base should be smooth, soft, should not produce irritation or sensitization of skin. In the present formulation *Siktha taila* is used as base which is the chief ingredient of *Malahara Kalpana*.

SIKTHA TAILA- After melting of bee wax in *Tilataila*, it should be filtered through a clean cloth to remove physical impurities.

Preparation of Gairikadya malahara- *Shuddha Gairika*, *Sindhura*, *Haridra* are taken in the specific ratio according to *Rasa tarangini*.

Specified quantity of *Siktha Taila* is taken in a clean *khalwa yantra* and the *churnas* are added one after the other and mixed homogenously. When it cools on its own, it attains semi solid consistency (ointment form). The prepared *Malahara* is light brown in colour, soft and smooth.

INGREDIENTS & PROPERTIES OF GAIRIKADYA MALAHARA

S.No	INGREDIENTS	PROPERTIES
1.	Gairika ^[11]	It is <i>Snigdham</i> and has <i>Madhura rasa</i> , <i>Sita guna</i> , <i>Hikka</i> , <i>Vami Nivaranam</i> , <i>Raktapitta Prashmanam</i> , <i>Asrigdhara Nashanam</i> , <i>Vishapaham</i> , <i>Balyam</i> , <i>Udarda</i>

		<i>Kandu Shamanam, Vranaropanam, Jwaraghna and Vahnidagda Vrana.</i>
2.	<i>Sindhura</i> ^[12]	It is <i>Kshudra Kushtaghna, Twachya, Vranavishodhanam, Bhagnasandhanajananam and Vranaropanam.</i>
3.	<i>Haridra</i> ^[13]	It has <i>Katu Tikta rasa, Ruksha guna, Kapha-Pitta hara and Varnya</i> . It is indicated for <i>Tvakroga, Daha, Prameha, Raktadosha, Shotha, Pandu and Vrana.</i>
4.	<i>Siktha</i> ^[14]	<i>Siktha</i> has <i>Madhura rasa, Snigdha and Picchila guna, Sandhanakara, Vrana ropana and Bhutaghna.</i>
5.	<i>Tila Taila</i> ^[15]	It has <i>Madhura rasa, Snigdha, Guru, Vikasi guna, Sandhaniya, Vranaropana, Twakprasadana, Vranashodhana.</i>

CONCLUSION

The Preparations used for topical application are *Lepa, Malahara, Siktha Taila* etc., The word *malahara* was adopted by *Yogaratanakara* from the word *Malaham* or *Marham* basically originated from Unani system of Medicine.

Malahara kalpana is easy to apply and smooth in nature. It helps to eliminate the impurities when applied externally and probably takes care of skin to restrict the periodic episodes, secondary bacterial infections etc.

All the ingredients of *Gairikadya Malahara* acts as *Vrana Shodhana, Vrana Ropana and Twak Prasadana*. Hence, *Gairikadya Malahara* is indicated in *Dushta vrana* and *Kushta* associated with *Kandu*.

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