

PHARMACEUTICAL STANDARDIZATION OF GUNJA TAILA

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ABSTRACT

Snehakalpana is important in treating both *bahya* and *abhyantara rogas*. When used externally it diffuses into the local soft tissues and produces the desired therapeutic action. *Gunja Taila* is one such formulation mentioned in *Bhaishajyaratnavali*, claimed to be beneficial in *Darunaka*. The ingredients are *Gunja* seeds, *Bhringaraja* and *Tila Taila*. Therefore, this formulation is selected to study its efficacy in *Darunaka*. The main pharmaceutical procedures involved in the preparation of *Gunja Taila* are *Shodhana*, *Swarasa nirmana* and *Taila paka*. The specific pharmaceutical blend of these contents can result in a more effective formulation. Therefore, the present study has been planned to standardize the method of preparation of *Gunja Taila* according to the method explained in the classical literature.

KEYWORDS: *Ayurveda*, *Darunaka*, Dandruff, Seborrheic dermatitis.

INTRODUCTION

According to *Vagbhata*^[1] and *Sharangadhara*^[2] *Darunaka* is *Kapalagata roga* but *Sushruta*^[3] and other *Acharyas* explained *Darunaka* disease under *Kshudra roga*. *Acharya Charaka* has not mentioned the disease directly, however in 26th chapter of *chikitsasthana*, *samprapti* of *Darunaka* is given in *Shirah kapalagataroga* without naming.^[4] *Darunaka* is presented with the symptoms like *kandu*, *rukshata*, *twaksphutan*, *kesh-chyuti*.

In the case of dandruff, the skin cells shed at a faster rate than usual. When the hair is combed

or brushed or if the scalp is scratched, the scales from the scalp fall like snowflakes and settle on the eyebrows, shoulders and clothes. These scales sometimes appear as crusts on the scalp.

Bhaishajya Kalpana is a pharmaceutical branch of *Ayurveda* dealing with medicinal preparations, formulations, dosage, etc. Broadly two main types of *Sneha Kalpana* are described in *Ayurvedic classics* i.e., *Ghritha & Taila Kalpana*. *Gunja Taila*, is effectively used for the treatment of *Darunaka*.

Gunja Taila is also mentioned in *Vrindamadhava*, *Vangasena*, *Bhavaprakasha*, *Yogaratanakara*, *Bhaishajya Ratnavali*, *Brihat YogaTarangni*, *Rasa Tarangini* etc.

AIMS AND OBJECTIVES

1) To prepare *Gunja Taila* which is indicated in *Darunaka*.

MATERIAL AND METHODS

Entire preparation of *Gunja Taila* was carried out in P.G. Department of *Rasa Shastra* and *Bhaishajya Kalpana* TTD's S.V. Ayurvedic College, Tirupati.

Gunja Taila was prepared strictly as per the guidelines of the classical literature. The changes occurring during the preparation were noted keenly

The Equipments used are

1. Wide mouthed stainless steel vessels.
2. *Khalva yantra*.
3. Strong spatula with long handle.
4. Measuring jar.
5. A clean cloth for filtering.
6. A Cloth for making *pottali*
7. Heating Aid Gas-Stove
8. A rod.
9. *Ulukhala Yantra*.

Stage 1

- *Gunja Shodhana*

Stage 2

- *Bhringaraja Swarasa Nirmana*

Stage 3

- *Taila Paka*

Ingredients for *Gunja shodhana*.

Drugs	Quantity
<i>Gunja</i>	250g
<i>Go ksheera</i>	6L

Ingredients for *Bhringaraja Swarasa* preparation.

Drugs	Quantity
<i>Bhringaraja</i> (dry drug)	2kg
Water	16L

Ingredients for *Gunja Taila* preparation.

Drugs	Quantity
<i>Tila Taila</i>	1L
<i>Kalka Dravya: Shodhita Gunja</i>	250g
<i>Drava Dravya: Bhringaraja Swarasa</i>	4L

Method of Preparation***Gunja Shodhana*^[5]**

- *Gunja* seeds were taken in *ulukhala yantra* and were coarsely pounded.
- They were tied into *pottali* using double folded cloth.
- Tied to a rod and hung in the vessel.
- Milk was added into the vessel till the *pottali* gets immersed.
- Boiling was continued for 6 hours (2 *yama*) on mild flame
- Milk was added whenever the level goes down.
- After 6 hours the *pottali* was removed.
- Seeds were washed with hot water and shade dried.

***Bhringaraja swarasa*^[6]**

- 2 kg of dried *Bhringaraja* was taken, physical impurities were removed and pounded.
- This was taken in a large steel vessel and 16L of water was added to it. It was kept on mild flame and boiling was continued until it got reduced to 1/4th of the initial quantity.
- Filtering was done using a cloth and 4 L of *Bhringaraja swarasa* was obtained.

***Gunja Taila*^[7]**

- *Tila taila* was taken in a large stainless-steel vessel and heated on mild flame.
- *Shodhita Gunja* was made into *kalka* and added into the *taila*. Then

Bhringaraja swarasa was poured into it.

- The *taila paka* was continued for two days, after attaining the *taila pakalashana* it was filtered using a white cloth.



1. *Ashuddha Gunja* seeds
2. Crushed *Gunja* seeds.
3. *Gunja* seeds tied into a *pottali*
4. *Dola Yantra swedana* of *Gunja* seeds in *Go Ksheera*. (*Gunja Shodhana*)
5. *Gunja* after completion of *Shodhana*.
6. *Bhringaraja Swarasa*.
7. *Tila taila* being heated in the vessel.
8. *Bhringaraja swarasa* and *Gunja kalka* added to *Tila Taila*.
9. *Taila paka*.
10. *Siddha Gunja Taila*.

RESULTS

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

Initial weight	Final weight	Gain in weight	Gain in weight%
250g	300g	50g	20

Table 2: Showing the result of Preparation of *Gunja Tailam*.

Initial quantity	Final quantity	Loss in quantity	Loss in quantity %
1000ml	850ml	150ml	15

Precautions

- Heating should be done on mild flame.

DISCUSSION

The pharmaceutical procedures adopted in this study are *Shodhana- Dola Yantra swedana*, *Swarasa nirmana* and *Taila paka*.

Shodhana

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 texts. *Shodhana* process is not a mere chemical purification where the purity percentage of the material becomes increased.

Dola Yantra

Dola Yantra is an apparatus used for *Shodhana* process of *Rasaushadha*, *Visha* and *Upavisha*, in which drug containing *Pottali* is to be suspended in particular liquid media for specific time.

Gunja Shodhana

Observations

- Immediately after dipping the *pottali* into milk, it turned into pinkish red.
- During the process milk was turning into creamish brown color.
- At the end of the process the milk solids were attached to *Gunja*.

The emittance of strong fumes and the change in color of the milk indicates the mixing of toxic contents of *Gunja* into the milk. Probably the protein Abrin gets denatured thus making *Gunja* suitable for medicinal purpose.^[8] After finally washing and drying the *Gunja* they turned into brownish black pieces.

Swarasa

Swarasa is prepared with a fresh drug. In absence of fresh drug procedures are also mentioned in *Ayurveda* classics to extract *swarasa* from dry drug.

One-part coarse powder of the drug is taken and 8 times of water is added. It is boiled and reduced to 1/4th filtered and used as *swarasa*.

Bhringaraja Swarasa

Dried *panchanga* of *Bhringaraja* was processed and *swarasa* was extracted by the above method.

Taila Kalpana

Classical method of *Taila Kalpana* was followed. It was carried on mild flame.

Preparation of *Gunja Taila*- *Shodhita Gunja*, *Tila Taila*, *Bhringaraja swarasa* are taken in specific ratio (1:4:16) according to *Bhaishajya Ratnavali* and *Tailapaka* was carried out. *Gunja Taila* obtained was greenish brown in color having mixed odor of *Bhringaraja swarasa* and *Gunja*. In this way *Gunja Taila* was prepared.

Tila taila has *Vata kapha shamaka*, *snigdha guna* and *ushna virya*.^[9] *Gunja* has *laghu*, *ruksha guna*, *ushna virya*^[10] and *katu vipaka* is *kapha vata shamaka* and properties like *keshya*, *twachya*.

Bhringaraja has *katu*, *tikta rasa*, *ruksha* and *laghu guna*, *ushna virya*, *katu vipaka* and *vata-kapha shamaka*.^[11] It has properties like *keshya*, *twachya* and *kesharanjana*.

Darunaka occurs due to the vitiation of *Vata Kapha*. This preparation ‘‘*Gunja Taila*’’ will be highly efficacious as all the ingredients used in the preparation of *Gunja Taila* are directly *kapha vata shamaka*.

CONCLUSION

Sneha kalpana is a unique dosage form of *Ayurveda* in which both lipid and water-soluble active principles are extracted. It is a very frequently used liquid dosage form and administered through all the routes of our body.

Pharmaceutical standardization is the first step towards standardization of any drug. So, it should be done with utmost accuracy. This leads to reproducibility of drug and production of safe and efficacious drug.

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