



STANDARDIZATION OF SINDOORADYA TAILA: AN AYURVEDIC OIL-BASED PREPARATION

Dr. Bhanupriya

MD (RSBK) RMO, Institute for Ayurved Studies and Research Hospital, Shri Krishna Ayush University, Kurukshetra, Haryana.

ABSTRACT *Sneha Kalpana* is mass transfer of the aqueous and lipid soluble active principles of all the treated drugs in accordance of established formulae quoted in authoritative texts of Ayurveda. *Sindooradya taila* is a herbomineral preparation indicated in skin disorders for external use in *pama*, *vicharchika* etc. as described in *Rasatarangini*. Herbo mineral preparation are better over herbal because they have more potency. These formulations have more potency, efficacious, imparting better results even in minute dosages. *Sindooradya taila* comprises of *Sindoor* and *Tuttha* as mineral ingredients and *Arka*, *Haridra* and *Sarshapa* oil. The main objective of this present work is standardization of pharmaceutical preparation of *Sindooradya taila*. *Taila* was prepared in three different batches to achieve the optimum results.

KEYWORDS : *Sindooradya taila*, *Sneha Kalpana*, Standardization, Pharmaceutical study

INTRODUCTION

In the beginning of the first millennium A.D., there were mainly three principal medical systems; *Ayurveda*, Greek and Chinese medicine. The Fundamental principle of the relationship between the man and nature was same in all the medical systems, but their approach in therapy was different. Among all the three ancient medicinal systems *Ayurveda* emerged as one of the world's classic medical practices.¹ *Atharva Veda* was the earliest authentic text in *Ayurveda* which discusses about the nature of existence, health and principles of treatment. The Ayurvedic system of medicine is the oldest medical science, but for last few centuries, the practice of this medical science has reduced due to several factors and the prevalence of allopathic treatment has been flourished in various countries due to numerous favourable aspects. The term for standardization of drug is not new in *Ayurveda*, *Acharya Charaka* had also mentioned in his treatise *Charaka Samhita* about the qualities of the standard drug.² A drug is considered to be taken in proper medication when it is used in small dosage, easy to take, easily digestible, alleviates all the *doshas*, palatable, pleasing, curative of particular disease, does not produce any complications and should have better taste, color and odor.³ The word *Rasa Shastra* literally means the "Science of Mercury". However, it is a specialized branch of *Ayurveda* dealing mainly with materials which are known as *rasa dravyas*.

MATERIALS AND METHODS

In the preparation of *Sindooradya Taila*, *shodhana* of earlier mentioned drugs like *Girisindoor*, *Tuttha* has been done and *murchhana* of *sarshapa taila* was carried out. The whole process starts with process of *Girisindoor shodhana*, *Tuttha shodhana*, *Sarshapa taila murchhana* and preparation of *Sindooradya taila*.

Materials:

All the crude raw materials were collected and procured from Hans Pharmacy, Haridwar. All the raw material was authenticated by the Department of Dravyaguna and Department of Rasa shastra and Bhaishajya Kalpana, Patanjali Bhartiya Ayurvedigyan Evam Anusandhan Sansthan, Haridwar. All the raw drugs were authenticated prior to the commencement of pharmaceutical study.

Method:

The method followed for the preparation of *Sindooradya taila* is reference from *Rasatarangini* tarang 21⁴. The study Samples were prepared in the Department of *Rasa shastra* and *Bhaishajya Kalpana*, Haridwar.

Pharmaceutical Processing

To achieve best results, a number of three batches have been prepared for *Sindooradya taila*.

Shodhana of *Girisindoor* and *tuttha* was carried out as per the original texts. The *taila murchhana* was carried out as a part of *Sneha Kalpana* process. The procedures are as follows:

Girisindoor Shodhana

Shodhan of *Girisindoor* was done according to *Rasajala Nidhi*⁵. 95g of *ashudha Girisindoor* was powdered with the help of mortar and pestle and lemon juice was extracted in a bowl. Lemon juice is added to

powdered *ashudha Girisindoor* in *khalwa yantra* to make it wet. Lemon juice is added in such a quantity so that powdered drug is immersed enough for pestle movements. *Girisindoor* was triturated with lemon juice until it become dried and is allowed for drying in sunlight. When *Girisindoor* was dried, it was again subjected to *bhavana* with *tandulodka* (rice water). *Girisindoor* was triturated with *tandulodka* until it shows *subhavat lakshanas*. When *Girisindoor* was completely dried it was collected in a petri dish and can be used for further procedure.

Tuttha Shodhana⁶:

As per *Rasa Tarangini*, 50 g of *Tuttha* was ground and triturated with lemon juice for six hours. The acidic medium facilitates the removal of toxic and insoluble impurities. The purified material was sun-dried and stored in airtight containers. The lemon juice serves both as a detoxifying and a potentiating agent, transforming the raw *Tuttha* into a pharmaceutically suitable form.

Sarshapa taila murchhana⁷:

This section describes the formulation and ingredients for the *murchhana* process of *sarshapa taila*. The process is based on classical Ayurvedic text *Bhaishajya Ratnavali jwara* 5/1288-1289

Ingredients And Quantities

Sarshapa taila: 2 litres
Jala(water): 8 litres
 Herbal drugs (30g each)
Haritaki
Vibhataki
Amalaki
Haridra
Nagarmotha
Dadima
Nagkesar
Krishanjeerka
Hriber
Bilva
Manjistha

Procedure:

Sarshapa taila was taken in a steel vessel and heated on mild fire till froth and foam was disappeared from the oil then allowed to cool. Afterwards, paste of *Manjistha*, *Haritaki*, *Vibhataki*, *Amalaki*, *Haridra*, *Nagarmotha*, *Dadima*, *Naagkesar*, *Krishanjeerak*, *Hriber* and *Bilva* was made by adding water. *Sarshapa taila* was cooled before the *kalka dravya* was added. Next, 8 litres of water was added and heated on low flame. This mixture was heated on mild fire till all moisture content was evaporated. After that, when *taila siddhi lakshana* were found, oil was filtered with a muslin cloth.

Observations:

After addition of *kalka dravyas* when *sarshapa taila* was heated on mild fire, peculiar pungent smell was observed.

Profuse frothing was observed after addition of *kalka*. Temperature observed by using infrared thermometer at the center of vessel was 80° to 90° C, and at periphery it was 60° to 70° C.

Color of *sarshapa taila* changed to reddish maroon which was may be due to presence of *Manjistha* and *Haridra*.

Sneha siddhi lakshana were observed and repeated at the end of *murchhana* process.

Preparation of *Sindooradya taila*⁸

Each batch was prepared with the following ingredients:

Murchhit Sarshapa Taila: 300 ml

Shuddha Girisindoor: 30 g

Shuddha Tuttha: 0.5 g

Haridra: 75 g (coarsely powdered)

Arka Leaves: 75 g (fresh, washed and ground)

Water: 1 liter

Procedure:

Haridra was coarsely powdered in *ulukhala yantra* and *Arka* leaves were washed properly with clean water and grinded with mortar and pestle. *Arka* leaves and *Haridra* were mixed in a stainless-steel plate and *kalka* was made by adding water. After this, *Moorchit sarshapa taila* was taken in a clean stainless-steel vessel placed over mild fire and heated till froth or foam appeared. After disappearance of froth, oil was allowed to cool. It was added with *kalka* of *Haridra* and *Arka* leaves and stirred with ladle and added with four parts of clean water and heated over mild fire. Then, the mixture was continued to cook over mild flame until only oil was left out or until all *sneha siddhi lakshanas* were attained. Later the oil was filtered with a muslin cloth and stored in a glass container.

Observations:

During *taila paka* a peculiar odor of *moorchit sarshapa taila* was observed.

Bubbles sound was heard during *taila paka* which was due to presence of water.

Color of oil was changed to dark brown because of presence of *Girisindoor*.

When all water content was evaporated, *sneha kalka* attains a perfect wick shape when rolled between thumb and index finger.

If a part of *sneha kalka* was put into fire, no sound is produced indicating the loss of moisture in it.

Desired color, odor and taste of the ingredients become appreciable as the preparation was properly done.

Initial quantity of *taila* : 300 ml Final quantity of finished product
: 210 ml Total time duration
: 5 hours Number of days for *taila paka*
: 3 days Color of final product
: Dark brown

Same procedure was repeated for two more times, with same quantity of ingredients.

Following data represents comparative total result or loss of *taila* during the process for three batches. Approximate 23.86% of average loss of *taila* was being observed.

RESULT:

Preparation of *Sindooradya taila*

Sindooradya taila was prepared in three different batches with same procedure and with equal quantity of ingredients. Following are the organoleptic characters of final product.

Following table shows the comparative result of three batches

Table no.3.1

Batch no.	Date of commencement	Date of completion	Initial quantity taken	Final quantity	Loss	Loss %	Average loss
Batch 1	10/10/2019	12/10/2019	300 ml	210 ml	90 ml	30%	23.86%
Batch 2	21/10/2019	23/10/2019	300 ml	235 ml	65 ml	21.66%	
Batch 3	21/10/2019	23/10/2019	300 ml	240 ml	60 ml	20%	

DISCUSSION:

Shodhana Of Girisindoor

Concept of *shodhana* of *Girisindoor* was only described by Kaviraja Bhudev Mookerji in *Rasajala nidhi*. It was observed that when *Girisindoor* was brought for trituration in *khalwa yantra* with rice water, after trituration for some time, blackish layer was removed. *Shodhana* of *Girisindoor* was aimed to relieve external and internal impurities beside enhancement of its original medicinal properties.⁹ Trituration of *girisindoor* helps in size reduction with continuous movements of pestle. It facilitates better absorption in the body as surface area was increased. The repeated movement of mortar and pestle generate optimum heat which is enough for chemical reaction among *bhavana* and *bhvaya dravya*.⁹

Shodhana Of Tuttha

Among various references available for *Tuttha shodhana*, reference of *Rasa tarangini* was selected for this study. *Shodhana* of *nirmalikrut Tuttha* was done by trituration it with *nimbu swarasa* for six hours. It is hypothetically believed that *nimbu swarasa* acts as an antagonistic to *Tuttha* thereby destroying and neutralizing the toxic effects of the raw material. Further there will be addition of organic compounds to minerals in process leading to potentiation. This phenomenon helps in removing the soluble impurities and addition of useful material into the drug.¹⁰

Preparation of *Sindooradya taila*:

Moorchit Sarshapa taila was heated in a stainless-steel vessel over *mandagni* and *kalka dravya* was added to it after froth disappeared. It was added with four parts of water and placed over mild heat. *Sindooradya taila paka* was done for three days over mild heat to get better therapeutic utility. *Haridra* and *Arka* leaves were coarsely powdered and made into bolus form for better extraction of their properties. When all the water was evaporated, *sneha kalka* attains a wick like shape when rolled between the fingers and all *sneha siddhi lakshanas* were attained. This study helps in setting quality standard for *Sindooradya taila*, making it more reliable for further use in Ayurveda practices. This laid the ground work for using *Sindooradya taila* with better confidence in its quality and effects.

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