



Research Article

PHARMACEUTICAL STANDARDIZATION OF MALATYADI TAILA

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ABSTRACT

Snehakalpana plays an important role in treatment both internally and externally. When used for topical application it has the potential to diffuse locally in soft tissues and produce the desired therapeutic action. The specific pharmaceutical blend of these contents can result in a more effective formulation. *Malatyadi Taila* is one such formulation mentioned in *Chakradutta*, claimed to be beneficial in *Darunaka*. The ingredients are *Malati patra*, *Karaveera moola*, *Chitraka moola*, *Karanja beeja*. Therefore, this formulation is selected to study its efficacy in *Darunaka*. The main pharmaceutical procedures involved in the preparation of *Malatyadi Taila* are *Shodhana*, *Churna nirmana*, *Kalka 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 *Malatyadi Taila* according to the method explained in the classical literature.

INTRODUCTION

Ayurveda is a highly evolved and codified system of health science based on its own unique and original concepts. *Rasashastra* and *Bhaishajya Kalpana* is the branch of Ayurvedic science that exclusively focuses on various aspects of preparation of medicines. It is known to establish change in the qualities and properties of the drug either by inducing a new property or improving the existing one and finally making the drug safe and more effective. *Sneha kalpana* means medicated fatty preparations.^[1] These are prepared by using oil or ghee with some decoction or other liquids and paste of the drugs by heating method. It is one of the important and prime dosage forms in Ayurveda that has been emphasized in various conditions both for its internal and external application.^[2]

MATERIALS AND METHODS

Collection of Raw material

Chitraka moola was collected from Chennai Market and foreign matter adhering to raw drugs was removed and cleaned. *Malati patra*, *Karaveera moola*, *Chitraka moola*, *Karanja beeja* were collected from the herbal garden, S.V. Ayurveda College, TTD, Tirupati. It was then identified macroscopically and studied for important botanical characteristics. The base, which was used for the preparation of this *Taila* i.e., *Tila taila* was also purchased from local market.

Methods

Entire preparation of *Malatyadi Taila*^[3] was carried out in Department of *Rasa Shastra* and *Bhaishajya Kalpana*, TTD's S.V. Ayurvedic College, Tirupati.

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

1. The drugs enumerated in the recipe.
2. Wide mouthed stainless-steel vessel.
3. *Khalva yantra*.
4. Strong spatula with long handle.
5. Measuring jar
6. A clean cloth for filtering.
7. A pyrometer for recording the temperature.
8. Heating aid- Gas stove.

The ingredients of the formulation are

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Table 1: Showing the Ingredients of Malatyadi Taila

Drugs	Quantity
<i>Tila taila</i>	1part
Kalka dravya: <i>Malati patra</i> <i>Karanja beeja</i> <i>Suddha Chitraka moola</i> <i>Suddha Karaveera moola</i>	1/4 th part
<i>Jala</i>	4 parts

The entire pharmaceutical study was carried out in five stages

Stage-I

- *Churnodaka nirmana*
- *Chitrakamoola shodana*

Stage-II

- Preparation of *Malati patra churna*
- Preparation of *Karanja beeja churna*
- Preparation of *Chitraka moola churna*
- Preparation of *Karaveera moola churna*

Stage-III

- Preparation of *Kalka*.

Stage-IV

- Preparation of *Malatyadi taila*

Churnodaka Nirmana^[4]

Ingredients: *Churna*-4g, *Jala*-960ml.

Procedure

- 4g of *Sudha churna* was taken in a vessel.
- 960ml of water was added and mixed thoroughly and left for 12 hours.
- The supernatant water was taken out and filtered through cloth.
- *Churnodaka* was collected in a beaker.

Observations

- *Churnodaka* was colourless

Chitrakamoola shodana^[5]

Ingredients: *Chitraka moola*-500g, *Churnodaka*-960ml

Procedure

- *Chitraka moola* was cleansed to remove external impurities if any.
- *Chitraka moola* was taken in *Khalwa yantra* and pounded.
- It was soaked in *Churnodaka* for 24 hours
- *Chitraka moola* is taken out and dried in sunlight.

Observations

Colour of *Churnodaka* turned to Orange.

Preparation of Malati patra churna^[6]

Ingredients: *Malati patra*-500g

Procedure

- Dried *Malati patra* was collected and checked for any external impurities, worms and insects.
- It was taken in *Khalwa yantra* and pounded.
- Pounded material was collected in container.

Observations: Powder of *Malati patra* was obtained.

Preparation of Karanja beeja churna^[7]

Ingredients: *Karanjabeeja*- 500g

Procedure

- Dried *Karanja beeja* was collected and checked for any external impurities, worms and insects.
- It was taken in *Khalwa yantra* and pounded.
- Pounded material was collected in container.

Observations

Powder of *Karanja beeja* was obtained.

Preparation of Chitraka moola churna. ^[8]

Ingredients: *Shuddha Chitraka moola* -500g

Procedure

- *Shuddha Chitraka moola* was taken in *Khalwa yantra* and pounded.
- Pounded material was collected in container.

Observations

- Powder of *Chitraka moola* was obtained.

Preparation of Karaveera moola Churna ^[9]

Ingredients: *Karaveera moola*-500g

Procedure:

- Dried *Karaveera moola* was collected and checked for any external impurities, worms and insects.
- It was taken in *Khalwa yantra* and pounded.
- Pounded material was collected in container.

Observations

- Powder of *Karaveera moola* was obtained.

Preparation of Kalka^[10]**Procedure**

- *Shudda Chitraka moola Churna*, *Shudda Karaveera moola Churna*, *Malati patra Churna*, *Karanja beeja Churna* were taken in equal quantity in a vessel.
- This mixture was made into bolus by adding sufficient quantity of water.

Observations

- The colour of *Kalka* is greenish brown in colour.

Preparation of Malatyadi Taila ^[11]

Ingredients: *Kalka*-1250g

Jala-20litres

Tila Taila-5 litres

Procedure: *Tila Taila* was taken in wide mouthed vessel and placed over heating device on moderate fire.

- *Kalka* was added to *Tila Taila*

- *Jala* was added to *Taila* and the contents are stirred well.
- The heating was continued till the *Kharapaka lakshana* were obtained.
- Then the contents were filtered through a clean cloth to obtain *Malatyadi Taila*.

Observations

Foam was observed when *Taila Paka* completes. *Kalka* is hard rough to touch and does not yield any *Sneha* on pressing.

Images Showing the Preparation of Malatyadi Taila



- | | |
|---|---|
| 1. <i>Sudha Churna</i> | 15. <i>Karaveera moola churna</i> |
| 2. Adding <i>Sudha churna</i> to water | 16. <i>Suddha Chitraka moola Churna</i> |
| 3. Mixing <i>Sudha churna</i> in water | 17. <i>Karanja beeja Churna</i> |
| 4. <i>Churnodaka</i> left undisturbed for 12 hours | 18. <i>Malati patra Churna</i> |
| 5. <i>Churnodaka</i> | 19. <i>Karaveera moola Churna</i> |
| 6. <i>Ashuddha Chitrakamoola</i> | 20. Mixing of all ingredients by adding water |
| 7. <i>Asuddha Chitrakamoola</i> soaked in <i>Churnodaka</i> | 21. <i>kalka</i> |
| 8. <i>Shuddha Chitraamoola</i> | 22. <i>Tila Taila</i> |
| 9. <i>Shuddha Chitrakamoola Churna</i> | 23. Adding <i>Kalka</i> to <i>Taila</i> |
| 10. <i>Malati Patra</i> | 24. Adding water to <i>Taila</i> |
| 11. <i>Malati churna</i> | 25. Boiling of <i>Taila</i> |
| 12. <i>Karanja beeja</i> | 26. Filtering of <i>Malatyadi taila</i> |
| 13. <i>Karanja beeja Churna</i> | 27. <i>Malatyadi taila</i> |
| 14. <i>Karaveera moola</i> | |

Table 2: Showing the result of Chitraka moola Shodana

Initial weight	Final weight	Gain in weight	Gain in percentage
500gm	510gm	10	5%

Table 3: Showing the result of various practical in the preparation of Malatyadi taila

Name of the practical	Initial weight	Final weight	Loss in weight	Loss in percentage
Chitraka moola Churna	500g	400g	50g	10%
Karaveera moola Churna	500g	400g	50g	10%
Malati patra Churna	500g	400g	10g	2%
Karanja beeja Churna	500g	400g	20g	4%
preparation of Kalka	1250g	1250g	0g	0%
Malatyadi taila	5 litres	4.6 litres	400ml	8%

DISCUSSION

Pharmaceutical Study

- The pharmaceutical procedures adopted in this study are *Shodhana*, *Churna nirmana*, preparation of *Kalka* and preparation of *Malatyadi taila*.
- Shodhana* was done for *Chitrakamoola*. It was done to remove visible and invisible impurities, to reduce the toxicity and to enhance the therapeutic properties.
- Churna Nirmana* was done for *Malati patra*, *Suddha Chitraka moola*, *Karanja beeja* and *Karaveera moola*.
- All the above ingredients are taken in equal quantity and made into *Kalka* by adding sufficient quantity of water.
- Malatyadi taila* was prepared by following general method of *Tila paka vidhi*^[12].

1. Churnodaka Nirmana

Churnodaka Nirmana^[13] was done according to the method mentioned in *Rasa tarangini*.

1gm of *Sudha churna* was taken in a vessel and added with 240ml of water mixed thoroughly and left for 12hours. Later, the supernatant water was taken out and filtered through filter paper and *Churnodaka* was obtained.

2. Chitrakamoola Shodhana

Chitrakamoola Shodhana was done according to the method mentioned in *Rasa Tarangini*^[14].

Chitrakamoola twak was cleaned to remove external impurities if any. *Chitralamoola twak* was taken in *Khalwa yantra* and pounded.

It was soaked in *Churnodaka* for one day and dried in sun light. Colour of *Churnodaka* turned to orange colour. By *Shodhana* method *Tikshnatava* of *Chitrakamoola* is reduced.

3. Churna Nirmana of Herbal Drugs

Malati patra, *Suddha Chitraka moola*, *Karanja beeja* and *Karaveera moola* were made into fine powder,

according to the reference mentioned in *Sharangadhara Samhita Madhyama Khanda*.

4. Preparation of Kalka Nirmana

All the above powders are taken in equal quantity in a vessel and made into *Kalka* form by adding sufficient quantity of water.

Preparation of Malatyadi Taila

As per the reference, *Malatyadi taila* was prepared with 1 part of *Tila taila*, 1/4th part of *Shudda Chitraka moola Churna*, *Shudda Karaveera moola Churna*, *Malati patra Churna*, *Karanja beeja Churna* and 4 parts of *Jala*. *Tila taila* was taken in wide mouthed vessel and placed over heating device on moderate fire. *Kalka* of above mentioned drugs was added to *Tila Taila*. *Jala* was added to *Taila* and the contents were stirred well. In order to prevent the spillage of *Taila* due to overflowing, a wide mouthed large vessel was taken for the preparation. The colour of the *Taila* changed from light green to dark green after *Paka*. The colour change probably is an indication of solubility of active principles more into *Taila* with the increased contact time. The heating was continued till the *Kharapaka lakshna* were obtained. Foam was observed when *Taila paka* completes. *Kalka* is hard, rough to touch and doesn't yield any *Sneha* on pressing. *Khara paka* is good for external application because it is totally devoid of moisture content. Hence it is easily absorbed through the epidermal cells. Then the contents were filtered through a clean cloth to obtain *Malatyadi taila*. Final quantity of *Taila* obtained was 5000ml and the percentage of loss was 10%. *Malatyadi Taila* was transferred into bottles.

CONCLUSION

Taila kalpana, comes under *Sneha kalpana*, which is mentioned in the classical text books. *Malatyadi taila* is a herbal medicine meant for external application, mentioned in *Chakradutta Kshudra roga adhikara* indicated in *Darunaka*. The chief ingredients of *Malatyadi Taila* are *Shudda Chitraka moola Churna*,

Shudda Karaveera moola Churna, Malati patra Churna, Karanja beeja Churna and Tila taila. Principle procedures involved in the preparation of *Malatyadi Taila* are *Shodhana, Kalka nirmana, Churna nirmana,* and *Snehapaka.* 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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