PHARMACEUTICAL STANDARDIZATION OF
KANAKA 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. Kanaka TAILA is one such formulation mentioned in Bhaishajyaratnavali, claimed to be beneficial in Vyanga. The ingredients are Murchita tila taila, Priyangu, Manjista, Chandana, Nilotpala, Padmakesara. Therefore, this formulation is selected to study its efficacy in Vyanga. The main pharmaceutical procedures involved in the preparation of Murchita tila taila preparation, Churna Nirmana, Kalka Nirmana, Kashaya Nirmana, 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 Kanaka TAILA according to the method explained in the classical literature.

Index Terms - Ayurveda, Vyanga, Melasma, Tan.

I. INTRODUCTION

The word Vyanga literally means - Spotted, speckled, freckles on the face, a blot or blemish. Vyanga has been described by all the Brhatrayi. Vyanga is described in the chapter of ‘Ksudra Roga’ in Susruta Sarhita. Both Caraka Sarhita and Susruta Sarhita consider Vyanga as a ‘Raktaja Roga’. description is available in Astanga Hrdaya Uttaratantra, in the ‘Ksudra Roga Prakarana’ Melasma is called as Vyanga in Ayurveda. Charaka said that vitiated Pitta gets dried in Rakta of Twak, Tilakalaka, Pipulu, Vyanga and Neelika develops. As per Susruta, Vayu aggravated by anger and physical exertion, gets associated with Pitta and suddenly produces a thin, grey colored circular patch when reaches the face. Vyanga is a thin, grey coloured circular patch which occurs in face.

Melasma is a common, acquired and symmetrical hypermelanosis characterized by more or less dark brownish maculae, with irregular contour, but clear limits, on photo exposed areas, especially the face, forehead, temples, and more rarely on the nose, eyelids, chin, and upper lips. Darkening of the skin due to the over-production of melanin by overactive pigment cells called melanocytes.

comparative studies on skin affected by melasma and normal adjacent skin found that this condition is characterized by epidermal hyperpigmentation without increase in the number of melanocytes, increase in the quantity of melanin in all layers of the epidermis, increase in the number of melanosomes, and augmented dermal elastosis.

Bhaishajya Kalpana is a pharmaceutical branch of Ayurveda dealing with medicinal preparations. Broadly two main types of Sneha Kalpana are described in Ayurvedic classics i.e., Ghrita & TAILA Kalpana. Kanaka TAILA is effectively used for the treatment of Vyanga.

Kanaka TAILA is mentioned in, Bhaishajya Ratnavali.

Aims and objectives:

1)To prepare Kanaka TAILA which is indicated in Vyanga.

Material and Method:

Entire preparation of Kanaka TAILA was carried out in P.G. Department of Rasa Shastra and Bhaishajya Kalpana TTD’s S.V. Ayurvedic College, Tirupati.

Kanaka TAILA was prepared strictly as per the guidelines of the classical literature. The changes occurring during the preparation were noted keenly.
Material and Method:

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Kanaka 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.
4. A clean cloth for filtering.
5. Heating Aid Gas Stove.

The entire pharmaceutical study was carried out in five stages:

**Stage-I**
- Preparation of Murchita tila taila.

**Stage-II**
- Preparation of Churna.
  (Manjishtha, Priyangu, Chandana).

**Stage-III**
- Preparation of Kalka.
  (Priyangu, Manjista, Chandana, Nilotpala, Padmokesara).

**Stage-IV**
- Preparation of Yastimadhu Kashaya.

**Stage-V**
- Preparation of Kanaka Taila.

### Stage – I

<table>
<thead>
<tr>
<th>Drug</th>
<th>Dose</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Kalka:</strong></td>
<td></td>
</tr>
<tr>
<td>Haritaki</td>
<td>60g</td>
</tr>
<tr>
<td>Vibhitaki</td>
<td>60g</td>
</tr>
<tr>
<td>Amalaki</td>
<td>60g</td>
</tr>
<tr>
<td>Manjistha</td>
<td>250g</td>
</tr>
<tr>
<td>Lodhra</td>
<td>60g</td>
</tr>
<tr>
<td>Haridra</td>
<td>60g</td>
</tr>
<tr>
<td>Mustaka</td>
<td>60g</td>
</tr>
<tr>
<td>Nalika</td>
<td>60g</td>
</tr>
<tr>
<td>Ketaki</td>
<td>60g</td>
</tr>
<tr>
<td>Vatankura</td>
<td>60g</td>
</tr>
<tr>
<td><strong>Jala</strong></td>
<td>16 liters</td>
</tr>
<tr>
<td><strong>Tila Taila</strong></td>
<td>4.5 liters</td>
</tr>
</tbody>
</table>

### Stage- II

<table>
<thead>
<tr>
<th>Drugs</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chandana</td>
<td>500g</td>
</tr>
<tr>
<td>Manjishta</td>
<td>500g</td>
</tr>
<tr>
<td>Priyangu</td>
<td>500g</td>
</tr>
</tbody>
</table>
### Stage- III

<table>
<thead>
<tr>
<th>Drugs</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chandana</td>
<td>100g</td>
</tr>
<tr>
<td>Manjishta</td>
<td>100g</td>
</tr>
<tr>
<td>Priyangu</td>
<td>100g</td>
</tr>
<tr>
<td>Nilotpala</td>
<td>100g</td>
</tr>
<tr>
<td>Padmakesra</td>
<td>100g</td>
</tr>
</tbody>
</table>

### Stage- IV

<table>
<thead>
<tr>
<th>Drugs</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yastimadhu</td>
<td>4kg</td>
</tr>
<tr>
<td>Water</td>
<td>64L</td>
</tr>
</tbody>
</table>

### Stage- V

#### Ingredients for Kanaka Taila preparation

<table>
<thead>
<tr>
<th>Drugs</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Murchita Tila Taila</td>
<td>4L</td>
</tr>
<tr>
<td>Kalka Dravya: (Priyangu, Manjista, Chandana, Nilotpala, Padmakesara)</td>
<td>500g</td>
</tr>
<tr>
<td>Drava Dravya: Yastimadhu Kashaya</td>
<td>16L</td>
</tr>
</tbody>
</table>

#### Method Of Preparation:

**Murchita Tila Taila:**
- *Tila Taila* was taken in wide mouthed vessel and placed over heating device on moderate fire.
- *Kalka* of the drugs mentioned in Stage I was added to *Tila Taila*.
- *Jala* was added to *Taila* and the contents were stirred well.
- The heating was continued till the *Madhyama Paka lakshana* were obtained.
- Then the contents were filtered through a clean cloth to obtain *Murchita Tila Taila*.

**Churna Kalpana:**
- Dried Priyanga was collected and checked for any external impurities.
- It was taken in *Khalwa Yantra* and pounded.
- Pounded material was collected in a container.
- The same procedure is repeated for Chandana and Manjistha.

**Kalka Kalpana:**
- Flowers of Nilotpala and Padmakesara were made to this paste of Priynagu, Manjista, Chandana were added.
- The mixture was made into bolus by adding sufficient quantity of water.

**Kashaya Kalpana:**
- *Yashtimadhu* root was taken and made into coarse powder.
- 16 parts of water was added to it.
- It was boiled on mild flame till it gets reduced to 1/4th of the initial quantity.
- *Yastimadhu kashaya* was obtained.

**Taila Kalpana:**
- *Murchita Tila Taila* was taken in wide mouthed vessel and placed over heating device on moderate fire.
- *Kalka* obtained is added to *Murchita Tila Taila*.
- *Yastimadhu kashaya* was added to *Murchita Tila Taila* and the contents were stirred well.
- The heating was continued till the *Khara Paka lakshana* were obtained.
- Then the contents were filtered through a clean cloth to obtain *Kanaka Taila*. 
1. Murchana Tila Taila.
2. Priyangu Churna.
3. Majishta Churna.
7. Boiling Oil.
8. Filtered Oil.

RESULTS:

Table 1: Showing the result of Murchita Tila Taila Kalpana

<table>
<thead>
<tr>
<th>Initial quantity</th>
<th>Final quantity</th>
<th>Loss in quantity</th>
<th>Loss in quantity%</th>
</tr>
</thead>
<tbody>
<tr>
<td>4000ml</td>
<td>3500ml</td>
<td>500ml</td>
<td>12%</td>
</tr>
</tbody>
</table>

Table 2: Showing the result of Preparation of Churna Kalpana (Manjistha, Chandana & Priyangu- Individually)

<table>
<thead>
<tr>
<th>Initial Weight</th>
<th>Final Weight</th>
<th>Loss in quantity</th>
<th>Loss in quantity%</th>
</tr>
</thead>
<tbody>
<tr>
<td>500g</td>
<td>400g</td>
<td>100g</td>
<td>20%</td>
</tr>
</tbody>
</table>
This leads to reproducibility of drug and production of safe and efficacious drug.

**Pharmaceutical standardization** is the first step towards standardization of any drug. So, it should be done with utmost accuracy. Pharmaceutical procedures adopted in this study are Tila Taila Murchana, Churna Kalpana, Kalka Kalpana, Kashaya Kalpana and Kanaka Taila Kalpana.

*Tila Murchana* [4,5]:

Murchana is a special pharmaceutical procedure done prior to the sneha siddha kalpana. Murchana, a specific process, is described in Bhaishajya Ratnavali indicated to remove bad odor and Ama dosha from Sneha. Taila is heated until it gets froth free and allowed for self-cool. Later mentioned Murchana drugs are added to Taila and Paaka is done till it get free from moisture.

**Discussion:**
The pharmaceutical procedures adopted in this study are *Tila Taila Murchana, Churna Kalpana, Kalka Kalpana, Kashaya Kalpana and Kanaka Taila Kalpana.*

**Tila Murchana** [6]:

The outcome of Sneha Murchana is removal of unpleasant odour in the oil. Provided reddish colour to Oil (indicated under the context of Tila Murchana by group of drugs commencing with Manjishtha etc.)

**Kashaya Kalpana** [6]:

Kwatha is medicinal preparation in which coarsely powdered medicinal drug is boiled in sixteen times of water until residual portion of liquid is reduced to one eighth of entire matter and is filtered. The filtered liquid is termed as Kwatha.

**Yashtimadhu Kashaya**

Observations:

- The Kashaya while boiling was emitting sweet smell of Yashtimadhu.
- The Kashaya obtained was brownish liquid with sweet smell and taste.

**Preparation of Kanaka Taila:**

Chandana Priyangu, Manjistha Padmakesara, Nilotpala, Padmaka, Murchita Tila Taila, Yashtimadhu swarasa are taken in specific ratio according to Bhaishajya Ratnavali and Tailapaka was carried out. Kanaka Taila obtained was reddish orange in color having mixed odor of Nilotpala and Chandana. In this way Kanaka Taila was prepared.

- *Tila taila* has Vata kapha shamaka, snigdha guna and ushna virya [7].
- *Priyangu* has tikta, kashaya, and madhura rasa, laghu and ruksha guna, sheeta vireya and katu vipaka & is tridosha shamaka but acts on pitta [8].
- *Manjistha* has Madhura Tikta, Kashaya rasa, Katu vipaka, Ushna virya and Laghu, Snigdha guna & is Tridosahara, Kashatagha, Rakt prasadana, Varana ropana, and Varnya. It is indicated in kushta [9]. Chandana has tikta, kashaya rasa, laghu rooksha gunas, seeta veerya and katu vipaka & is kapha pitta samaka. It is varnya, rakt prasadana, [10].

- *Nilotpala* has madhura, kashaya, tikta rasa, laghu snigdha guna, sheeta veerya and madhura vipaka. It is kapha pitta shamaka and has qualities like rakt dosha hara, hrdyam. It is indicated in rakt doshas [11].
- *Padmakesara* has kashayas, madhura, tikta rasa, laghu snigdha guna, sheeta vireya madhura vipaka and pitta kapha shamaka. It is varnya and tarpana [12].
- *Yashtimadhu* has Madhura rasa, Madhura vipaka, Shita veerya and Guru-Snigdha Gunas & is Vata -Pittahara. It does Vrana Sodhana [13].

As the disease Vyanga has Pitta and Rakta in its samprapti, this preparation ‘Kanaka Taila’ be highly efficacious as all the ingredients used in the preparation of Kanaka Taila are directly Tridosahghna & Rakta 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.

<table>
<thead>
<tr>
<th>Initial Weight</th>
<th>Final Weight</th>
<th>Loss in quantity</th>
<th>Loss in quantity %</th>
</tr>
</thead>
<tbody>
<tr>
<td>500g</td>
<td>500g</td>
<td>0g</td>
<td>0%</td>
</tr>
</tbody>
</table>

Table 4: Showing the result of Preparation of *Kanaka Taila*.

<table>
<thead>
<tr>
<th>Initial quantity</th>
<th>Final quantity</th>
<th>Gain/Loss in quantity</th>
<th>Gain/Loss in quantity %</th>
</tr>
</thead>
<tbody>
<tr>
<td>4000ml</td>
<td>3500ml</td>
<td>500ml</td>
<td>12</td>
</tr>
</tbody>
</table>

**Precautions:**

- Heating should be done on mild flame.

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Table 3: Showing the result of Preparation of *Kalka Kalpana*.
References:

8. Dravya Gunavigama Dr. Prakash L. Hegde and Dr. Harini A. Vol III Page No.539.
10. Dravya Gunavigama Dr. Prakash L. Hegde and Dr. Harini A. Vol II Page No.175.