



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 Samhita*^[1]. Both *Caraka Samhita* and *Susruta Samhita* 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*, *Piplu*, *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^[2]. *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*^[3].

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.

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The Equipments used are:

1. Wide mouthed stainless steel vessels.
2. *Khalva yantra*.
3. Measuring jar.
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, Padmakesara*).

Stage-IV

- Preparation of *Yastimadhu Kashaya*.

Stage-V

- Preparation of *Kanaka Taila*.

Stage – I

Drug	Dose
Kalka:	
<i>Haritaki</i>	60g
<i>Vibhitaki</i>	60g
<i>Amalaki</i>	60g
<i>Manjistha</i>	250g
<i>Lodhra</i>	60g
<i>Haridra</i>	60g
<i>Mustaka</i>	60g
<i>Nalika</i>	60g
<i>Ketaki</i>	60g
<i>Vatankura</i>	60g
Jala	16 liters
Tila Taila	4.5 liters

Stage- II

Drugs	Quantity
<i>Chandana</i>	500g
<i>Manjishta</i>	500g
<i>Priyangu</i>	500g

Stage- III

Drugs	Quantity
<i>Chandana</i>	100g
<i>Manjishta</i>	100g
<i>Priyangu</i>	100g
<i>Nilotpala</i>	100g
<i>Padmakesra</i>	100g

Stage-IV

Drugs	Quantity
<i>Yastimadhu</i> (dry drug)	4kg
Water	64L

Stage- V**Ingredients for *Kanaka Taila* preparation**

Drugs	Quantity
<i>Murchita Tila Taila</i>	4L
<i>Kalka Dravya:</i> (<i>Priyangu, Manjista, Chandana, Nilotpala, Padmakesara</i>)	500g
<i>Drava Dravya: Yastimadhu Kashaya</i>	16L

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 *Priyangu* 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 *Priyangu, Manjista, Chandana* were added.
- The mixture was made into bolus by adding sufficient quantity of water.

Kashaya Kalpana:

- *Yastimadhu* 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.*
4. *Chanadana Churna.*
5. *Kalka (Nilotpala, Padmakesara, Priyangu, Majishta, Chandana).*
6. *Yastimadhu Kashaya.*
7. Boiling Oil.
8. Filtered Oil.
9. *Kanka taila.*

RESULTS:

Table 1: Showing the result of *Murchita Tila Taila Kalpana*

Initial quantity	Final quantity	Loss in quantity	Loss in quantity%
4000ml	3500ml	500ml	12%

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

Initial Weight	Final Weight	Loss in quantity	Loss in quantity%
500g	400g	100g	20%

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

Initial Weight	Final Weight	Loss in quantity	Loss in quantity%
500g	500g	0g	0%

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

Initial quantity	Final quantity	Gain/Loss in quantity	Gain/Loss in quantity %
4000ml	3500ml	500ml	12

Precautions:

- Heating should be done on mild flame.

Discussion:

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

***Taila 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.

Taila Murchana**Observations:**

- 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 *Manjishta* 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 *Chanadana*. 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 virya* 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 *Tridoshahara*, *Kushtaghna*, *Rakta prasadana*, *Varna 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*, *rakta 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 *rakta dosha hara*, *hrdyam*. It is indicated in *rakta doshas*^[11].
- *Padmakesara* has *kashaya*, *madhura*, *tikta rasa*, *laghu snigdha guna*, *sheeta virya* *madhura vipaka* and *pitta kapha shamaka*. It is *varnya* and *tarpana*^[12].
- *Yashtimadhu* has *Madhura rasa*, *Madhura vipaka*, *Shita veerya* and *Guru-Snigdha Guna* & 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 *Tridoshaghna* & *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.

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