A PRELIMINARY PHARMACEUTICO-ANALYTICAL STUDY OF ARKA TAILA AND
ITS MODIFICATION AS MALAHARA
CHINTHAN KAJJARI1 TARIKA S BANGER2 SUBRAHMANYA PADYANA3

ABSTRACT
Skin diseases are the most common type of diseases which is seen in almost all the ages. They have a very large impact on the human population. As these diseases are known as Kushta Rogas in Ayurveda, they are considered to be one of the eight major diseases in Ayurvedic classics. Arka Taila is a unique formulation mentioned in the Sharangadhara Samhita which is indicated for Pama, Vicharchika and Kacchu. In the present study, an attempt was made to modify Arka Taila into Arka Taila Malahara which is an ointment preparation and pharmaceutico-analytical study was carried out for both Arka Taila and Arka Taila Malahara.

Key words- Skin Diseases, Kushta Roga, Arka Taila, Arka Taila Malahara, pharmaceutico-analytical study
INTRODUCTION

Taila kalpana is one of the four Sneha Kalpanas. Sneha Kalpana is considered to be “A pharmaceutical preparation of oleaginous medicaments from the ingredients like Kalka, Sneha Dravya and Drava Dravya taken in specific proportion and by subjecting them to unique heating pattern and duration to fulfill certain pharmaceutical parameters, according to the need of therapeutics”.

Arka Taila\(^1\) is an important formulation described by Acharya Sharangadhara in the management of skin diseases like Pama\(^2\), Vicharchika\(^3\) and Kacchu\(^4\). Various types of skin diseases are mentioned in Ayurveda under Kushta Rogas\(^5\). In Ayurveda, various acharyas have mentioned Kushta as one of the Ashta Mahagada\(^6\) (Eight Major Diseases of Ayurveda). It is so common nowadays that almost one third of the population is affected by this disease. Arka Taila consists of the medicinal drugs such as Arka, Sarshapa and Haridra.

Arka\(^7\) is one of the best medicinal drugs for management of various kinds of skin diseases. Acharyas have also mentioned it as Kushtahara Dravya. Apart from that, it has the specific action against the diseases such as Arbuda, Arsas, Gulma, etc. Haridra\(^8\) has antimicrobial and anti-inflammatory actions which promotes healing in case of skin diseases. Sarshapa\(^9\) is also a drug of choice for skin diseases and itching.

In the present study, Arka Taila was modified into Arka Taila Malahara as this pharmaceutical modification is need of the hour. Malahara\(^10\) is an ointment preparation which is having butter like consistency, which becomes very easy for application when it comes to skin diseases. In the preparation of Malahara, Taila or Ghrita is the main ingredient used followed by the Siktha which is added and stirred well till the homogenized mixture is obtained.

Hence, an attempt has been made in the present study to prepare Arka Taila and its modified form Arka Taila Malahara with its analytical study.

AIM AND OBJECTIVES:-

- To prepare Arka Taila as per the classical reference and to carry out its pharmaceutico-analytical study.
- To modify Arka Taila into Arka Taila Malahara and to carry out its pharmaceutico-analytical study.

METHODS AND MATERIALS

This is a pharmaceutical and analytical study.

Pharmaceutical study

Collection of raw materials
The raw materials used for the preparation of Arka Taila and Arka Taila Malahara were obtained from the Alva’s Pharmacy, Mijar, after proper authentication from the Dept. of Dravyaguna Vignana, Alva’s Ayurveda Medical College, Moodabidire.

Arka leaves were freshly collected and were washed properly to remove the dirt from the leaves.

**Preparation of Arka Taila**

- The preparation of Arka Taila was done as per the classical reference at laboratory of Rasashastra and Bhaishajya Kalpana, Alva’s Ayurveda Medical College, Moodabidire.
TABLE 1: Ingredients of Arka Taila

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Name of the Ingredient</th>
<th>Botanical Name</th>
<th>Family</th>
<th>Part Used</th>
<th>Quantity specified</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Arka Patra Swarasa</td>
<td>Calotropis gigantea Linn.</td>
<td>Asclepiadaceae</td>
<td>Leaves</td>
<td>1000mL</td>
</tr>
<tr>
<td>2.</td>
<td>Sarshapa Taila</td>
<td>Brassica campestris Linn.</td>
<td>Cruciferae</td>
<td>Seeds</td>
<td>250mL</td>
</tr>
<tr>
<td>3.</td>
<td>Haridra Kalka</td>
<td>Curcuma longa Linn.</td>
<td>Zingiberaceae</td>
<td>Rhizome</td>
<td>62.5g</td>
</tr>
</tbody>
</table>

Method of Preparation

- The desired quantity of freshly collected *Arka* leaves were washed properly and wiped.
- It was pounded to fine paste form in a clean *khalwa yantra*.
- The paste obtained was squeezed into another clean vessel through a clean kora cloth. By squeezing the paste, fresh *swarasa* was collected in a vessel. Thus obtained *Arka patra swarasa* was filtered and measured in the measuring jar. The total quantity of *swarasa* taken was 1 litre.
- The above specified quantity of *Haridra* was pounded into fine powder in a clean *khalwa yantra*.
- To this powdered *haridra*, desired quantity of water was added in a *khalwa yantra* and triturated to obtain *Haridra kalka*.
- In a clean wide mouthed vessel, specified quantity of *Sarshapa taila* was taken which was placed over mild fire and heated.
- The prepared *Haridra kalka* was added to the vessel containing *taila* and heating was continued with frequent stirring.
- Then freshly prepared *Arka patra swarasa* was added to above vessel and heating was continued with mild fire.
- The *taila* was heated with constant stirring till the attainment of *Sneha Siddhi Lakshana*.
- The obtained *Arka Taila* was filtered into the clean airtight container and preserved.

Preparation of Arka Taila Malahara

Method of Preparation

<table>
<thead>
<tr>
<th>Name of the Ingredients</th>
<th>Quantity specified</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Arka Taila</td>
<td>60ml</td>
</tr>
<tr>
<td>2. Siktha (Beeswax)</td>
<td>12g</td>
</tr>
</tbody>
</table>

- 60ml of *Arka Taila* was taken in a clean stainless steel vessel and heated over mild fire.
- When bubbles started appearing, the fire was immediately put off and the content of the vessel was transferred to the clean and dry *khalwa yantra*.
➢ To this khalwa yantra, 12g of Siktha was added and stirred instantaneously.
➢ The process of stirring was continued till the homogenous mixture of content was obtained. Hence the obtained mixture which was in smooth waxy ointment consistency called as Arka Taila Malahara.

Analytical study

Organoleptic Characters
Form, colour and odour were the tests performed for Arka Taila whereas form, colour, odour and consistency were the tests performed for Arka Taila Malahara.

TABLE 3: Organoleptic characters of Arka Taila are shown as follows

<table>
<thead>
<tr>
<th>Description</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Form</td>
<td>Liquid</td>
</tr>
<tr>
<td>2. Colour</td>
<td>Dark Green</td>
</tr>
<tr>
<td>3. Odour</td>
<td>Characteristic</td>
</tr>
</tbody>
</table>

TABLE 4: Organoleptic characters of Arka Taila Malahara are shown as follows.

<table>
<thead>
<tr>
<th>Description</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Form</td>
<td>Semi Solid</td>
</tr>
<tr>
<td>2. Colour</td>
<td>Light Green</td>
</tr>
<tr>
<td>3. Odour</td>
<td>Characteristic</td>
</tr>
<tr>
<td>4. Consistency</td>
<td>Smooth and Sticky</td>
</tr>
</tbody>
</table>

Physico-chemical Analysis
The pharmaceutical analysis of Arka Taila was done with parameters like pH, Spreadability, Refractive index, Specific gravity, Saponification, Iodine value.
The pharmaceutical analysis of Arka Taila Malahara with parameters like pH, Spreadability, Rancidity, Acid Value, Loss on Drying at 105º C.

RESULTS

Pharmaceutical study

TABLE 5: Physico-chemical analysis of Arka Taila are shown as follows.

<table>
<thead>
<tr>
<th>Descriptions</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. pH</td>
<td>6.16</td>
</tr>
</tbody>
</table>
TABLE 6: Physico-chemical analysis of Arka Taila Malahara are shown as follows

<table>
<thead>
<tr>
<th>Descriptions</th>
<th>Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. pH</td>
<td>6.07</td>
</tr>
<tr>
<td>2. Spreadability</td>
<td>9.89</td>
</tr>
<tr>
<td>3. Rancidity</td>
<td>Not oxidized</td>
</tr>
<tr>
<td>4. Acid Value</td>
<td>1.07</td>
</tr>
<tr>
<td>5. Loss on Drying at 105º C</td>
<td>1.28%</td>
</tr>
</tbody>
</table>

DISCUSSION
In the present study, Arka Taila was prepared as per the classical reference of Sharangadhara Samhita. The taila was prepared as per standard operative procedure where 1 litre of prepared Arka Patra swarasa, 250ml of Sarshapa taila and 62.5g of prepared Haridra kalka were used for the preparation. During the preparation of Arka Taila, appropriate Sneha siddhi lakshanas were observed and as a result, 120ml of Arka Taila was obtained. Thereafter, the Arka Taila was modified into Arka Taila Malahara by the standard method of Malahara preparation where 60ml of prepared Arka Taila along with 12g of Siktha was used. The total yield of malahara obtained was 60g.

As per the available data from the research studies, Tikta Rasa of the Arka Taila induces cleanness and dryness. It also has the properties of Krimihara, Puyashoshanakara and Shodhana which helps in opening the channels of the wound and also cleaning of the wound. Ruksha guna of Arka Taila helps in drying the wound as soon as possible and the laghu guna of Arka Taila has the properties of lekhana and ropana. Tikshna guna of the Arka Taila helps in the quicker healing of the wound that is Shighrakari by pacifying the Vata and Kapha doshas. Ushna guna of the Arka Taila
helps in enhancing the general metabolism which also supports quicker healing\[11\].

Arka Taila is the medication which is indicated for the diseases such as Pama, Kacchu and Vicharchika as per the classical reference of Sharangadhara Samhitha.

The analytical studies were carried out for both samples. The organoleptic characters of prepared samples such as *Arka Taila* showed dark green colour, liquid in form having characteristic odour whereas in case of *Arka Taila Malahara*, it was light green in colour, semi solid in form having smooth and sticky consistency with characteristic odour.

**CONCLUSION**

The prepared formulation *Arka Taila Malahara* was modified formulation which was prepared easily and convenient for the application. *Taila* being liquid becomes more susceptible to seasonal variation whereas *Malahara* remains semisolid in all the seasons. Hence *Malahara* remains to be stable having soft and smooth consistency for the longer period of time. This implies that *Malahara* was most acceptable form of preparation as compared to *Taila* preparation. Thus an attempt was made to modify *Arka Taila* into *Arka Taila Malahara*.

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**Conflict of Interest** – Financial Declared; others- None

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