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PRELIMINARY PHARMACEUTICO – ANALYTICAL STUDY OF *CHINCHA PATRA MALAHARA*

Prabhu R H[1], Swapna Kumary[2], Subramanya Padyana[3]

1. IV[th] Year BAMS, Alva's Ayurveda Medical college, Moodbidri, Karnataka, India
2. Professor & H.O.D, Dept of *Rachana Sharira*, Alva's Ayurveda Medical College, Moodbidri, Karnataka India
3. Director, Alva's Traditional Medicine Archive (ATMA) & Research Centre, Alva's AyurvedaMedical College Moodubidire, Karnataka, India

Corresponding Author: drsp28@gmail.com

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ABSTRACT

In classical literatures, many formulations containing herbal drugs are mentioned for the management of *Dadru Kushta*. *Chincha Patra Swarasa*is one among them. *Chincha* is a widely grown tree botanically identified as*Tamarindus indica L*. There is limited knowledge regarding its medicinal utility but is easily available and cost-effective. Inconvenience in the usage of *ChinchaSwarasa* and only seasonal availability with this draw back *Chincha patra swarasa* was modified into *Chincha Patra Malahara* form. A very wide range of topical formulations are described in texts of Ayurveda.

Malahara Kalpana is one of them. *Malahara Kalpana* is a very convenient form of topical application.*Malahara* was prepared by using *Chincha Patra, tila taila* & bee wax. The attempt is made in this article to assess its Pharmaceutical and analytical aspects while processing the drug *Chincha patra Malahara.* A preliminary analytical study was carried out to set the basic quality of formulation. The Quantity of *Malahara* obtained was 650gm witha characteristic odor, green in color, and smooth consistency. The results show a Ph value of 10.6, Loss on drying- 23.85, Rancidity-7.160, Total fat- 87.3 and Spreadability was1.2cm. Further details are explained in the full paper.

Keywords: *Dadru kushta, Chincha patra, Malahara*, Analytical study.

INTRODUCTION

Dadru is one among the *Kshudra kushta* which is of *pitta-kaphaja* in nature characterized by *Raga, Kandu, Pidaka, Udgata mandala & Rukshata*[1], etc. In classical literatures, many formulations containing herbal drugs are mentioned for themanagement of *Dadru kushta. Chincha Patra Swarasa* is one among them[2], which is not found to be verified in the pharmaceutico-analytical form to date. *Bhaishajya Kalpana* (Ayurvedic pharmaceutics) is a science that deals in detail with thepreparation of different medicinal formulations. There are many *Kalpana* mentioned like *Swarasa, kalka, kwatha, hima, phanta, Malahar,* and Many others. *Malahara* is a unique *Kalpana* which is one among *Bahirparimarjana chikitsa* (external applications). The word *Malahar* was adopted by yogratnakara[3] from the word *Malaham* or *marahamb*asically originated from the unani system of medicine. This is called *Malahar* because it removes *mala* (residue etc) from *vrana, vidradhi, twak vikara,* etc. conditions. *Malahara* has a property like *Snehana* (oleation), cleansing, *Ropana* (healing), *Lekhana* (scraping), and *Varnya* (beautifying), depending on the drug used in the preparation. oil or ghee & bee wax used as a base, the selection of the base and the ingredient in a *Malahara* probablydepends on the disease condition in which has to be used[4]. *Chincha* is a widely grown tree botanically identified as *Tamarindus indica*. distributed through India, particularly in the south. The leaves are sour, astringent, thermogenic, antihelmintic, anti-inflammatory, antifungal, and diuretic, they are useful in vitiated vata, swellings, fever, scalding of urine, helminthiasis, wounds, ulcers, tumors, ringworm, small-pox, otalgia and conjunctivitis [5]

The drug *Chincha patra swarasa* is mentioned for *Dadru kushta,* modification of *Swarasa* for better enhancement of shelf life and acceptability. Hence *Chincha patra swarasa* was modified into *Chincha patra Malahar,* as the *Malahar* dosage form remains in the site of action for a longer duration and gives better results[6]. lipids help in the easy absorption of drugs across the cell membrabe[7]. *Chincha patra Malahara* is a herbal formulation comprising *Chincha patra, tila taila,* beewax., This medicine has opted for study as it is ease to preparation and cost-effective.

AIMS AND OBJECTIVES

1, Preparation of *Chincha patra Malahara* as per standard method of *Malahara* preparation.

2, Pharmaceutico – analytical study of the *Chincha patra Malahara* to standardize the formulation.

MATERIALS AND METHOD

Collection

The raw drug required for the preparation of medicine were freshly collected and cleaned, and *Tilataila* & bee wax was procured from the market the authentication was done based on organoleptic and morphological characters.

The ingredients used for preparation are depicted in table 1.

Table 1: Ingredients

Sl. No	Ingredients	Botanical name	Family	Part used	Quantity
1	*Chincha*	*Tamarindus indica*	Fabaceae	Leaves	For *Kashaya* 1300gm. For *kalka* 162gm.
2	*Tila*	*Sesamum indicum*	Pedaliaceae	Seed oil	648ml
3	Water				10400ml
4	Bee wax				110gm

1. Preparation of *Chincha patra Kashaya*

Chincha patra Kashaya was prepared by taking 1300gm of *Chincha* leaves and adding 10400mlof water and reduced to 2600ml, the obtained liquid was filtered through a clean cloth, and the filterwas collected as *Chincha patra Kashaya*. (Fig 1)

2. Preparation of *Chincha patra kalka*: 162 gm of *Chincha patra kalka* was prepared by pounding the leaves of *Chincha*. (fig2)

3. Preparation of *Chincha taila* by *taila paka* method

Taila paka was carried out in 2 days by *taking Chincha patra Kalka, Tila taila, Chincha patra Kashaya* in the ratio of 1:4:16 ie: (162gm: 648ml: 2600ml)

Tila taila was taken in a stainless-steel vessel as the base oil, (fig 3) and heated over mild flame till the complete evaporation of moisture, then the *kalka* was added slowly (fig 4) andthe mixture was stirred well, followed by the addition of *Chincha patra Kashaya* as *drava dravya*.(Fig 5) heating was continued over a mild flame with constant stirring for proper mixing of thecontents and to ensure that the *kalka* does not stick to the bottom of the vessel.

On the first day the heating process was carried out for a duration of one hour. the *taila* waskept undisturbed over – night and the mouth of the vessel was covered with a clean cloth. The following day, *Taila* was heated over mild flame till the attainment of *Sneha siddi lakshana*. (fig 6)

Then the *Taila* was filtered with clean cotton cora cloth. The final quantity of *Taila* obtained wasmeasured to be 550ml.

4, Preparation of *Chincha taila Malahara*

Bee wax and obtained *Chincha taila* were taken in the ratio of 1:5 respectively (110gm:550ml)

Chincha taila was heated in the vessel under a mild flame, the bee wax was added to it and the bee wax was allowed to melt completely. The obtained product was filtered through clean cotton cora cloth into another vessel and allowed to cool, then it was stored in an air-tight container

. (Fig 7).

ANALYTICAL EVALUATION: The analytical aspect includes organoleptic evaluation and Physico- Chemical analysis.

1. Organoleptic Parameters

These tests were performed by using the sensory organs. The Organoleptic characters including *Rupa* (Color), *Gandha* (Odour), and *Sparsha* (Consistency) of the formulations were recorded

Table 2: Organoleptic characters

Parameters	*Chincha patra Malahar*
Odor	Characteristic
Color	Green
Consistency	Smooth

PHOTOS SHOWING THE METHOD OF PREPARATION OF *CHINCHA PATRA MALAHARA*

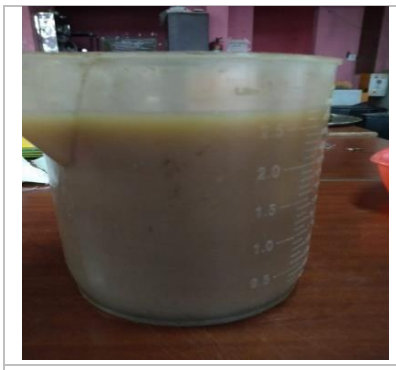

Fig.1

Fig.2

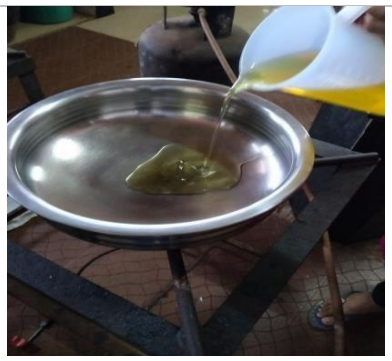

Fig.3

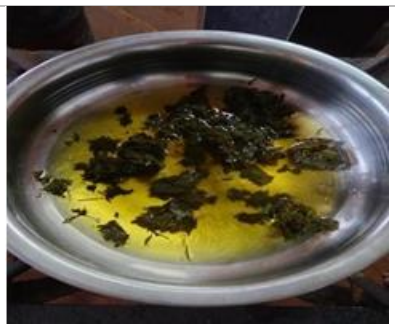

Fig.4

Fig.5

Fig.6

PHOTOS SHOWING THE ASSESSMENT OF DERMAL TOXICITY

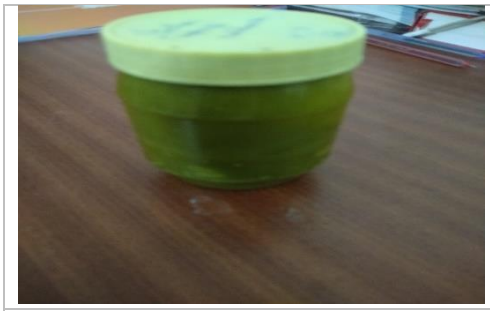

Fig.7

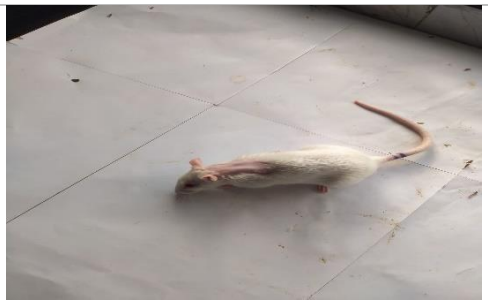

Fig.8

2 . Dermal toxicity

The procedure followed for the dermal toxicity study:

- The fur of animals was removed in the paravertebral region.
- *Chincha patra Malahar* -1gms was applied once a day.

Dermal toxicity study- any visible changes on the skin, eyes, behavior, and food intake wasnoted.

No visible changes were observed on the skin surface. There was no irregularity in the foodintake and activities of the animals. (Fig 8)

3 . Physico – chemical parameters

The formulation was analyzed for pH, Loss on drying, Total fat, Specific gravity, Refractive index, and Spreadability at Alva's research center and laboratory.

Table: 3

Parameters	***Chincha patra Malahara***
Ph	10.6
Loss on drying	23.85 %
Specific gravity	NA
Rancidity	7.610
Total fat	87.3 %
Spreadability	1.2cm

Results

The Quantity of *Malahara* obtained was 650gm with a characteristic odor, green in color, and smooth consistency. The Ph, Loss on drying, Specific gravity, Rancidity, Total fat, and Spreadability are 10.6, 23.85, NA, 7.160, 87.3, & 1.2 respectively.

DISCUSSION

The pharmaceutical preparation of *Malahara* by taking 648 ml of *Tila taila* and 2600ml of Kashaya and 162 gm of kalka was subjected to mild fire for 2 days until *Taila paka lakshana* appeared. The obtained *Chincha taila* is 550ml due to the evaporation and to this 110gm of beewax was added to prepare the *Malahara* in the ratio of 1: 5, initially 1: 4 was added but it is not compatible with the easy application. The Organoleptic study of the topical formulation is very necessary with regard to their physicalstability. It provides evidence of physical instability if present in the product like the formation ofagglomerates, any discoloration, emulsion breakdown, shrinking due to the evaporation of water, etc. From the data of the organoleptic study of the formulations, it is evident that all the parameters were found to be satisfactory. The analytical study revealed that the pH of the product was found to be 10.6 and the Spread ability ofthe product was found to be 1.2 cm. It shows the ointment is having fast spreading nature and is good for application total fat is 87.3% it is easily absorbable by the skin.

CONCLUSION

Malahara is easy to apply compared to *Swarasa* and it also does the enhancement of the shelf life, acceptability, and better presentation of the formulation. This formulation was found to be non-irritant. The other physico- chemical parameters were found to be in the satisfactoryrange. The current analytical data of the formulation provides a baseline analytical quality profile for the formulation.

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