



Research Article

A PHARMACEUTICAL STUDY OF RODHRADI LEPA

Amonker Rashmina Santosh^{1*}, Yeriswamy H², Sudhindra A.N³, Aditya Arvind Samant³

¹PG Scholar, ²Professor and HOD, ³Associate Professor, Rasashastra and Bhaishajya Kalpana Department, Gomantak Ayurved Mahavidyalaya, Shiroda, Goa, India.

Article info

Article History:

Received: 21-07-2023

Revised: 08-08-2023

Accepted: 24-08-2023

KEYWORDS:

Dhatri,
Pharmaceutical,
Rodhradi Lepa,
Rodhra, Tarunya
Pitika, Vacha.

ABSTRACT

Rodhradi Lepa is a *Tarunya Pitikahara Lepa* from *Gadanigraha* Text. It contains *Rodhra*, *Dhatri* and *Vacha* as ingredients. *Rodhradi Lepa* is a medication applied externally on face (*Mukhalepa*) for treating *Tarunya Pitika* (acne). *Rodhradi Lepa* is in *Churna* form (powder) which should be mixed with water and applied on face. Preparation of the *Churna* and *Lepa* are explained in the *Sharangdhara Samhita*. In the present study, *Churnas* of *Rodhra* (*Symplocos racemosa* Roxb.), *Dhatri* (*Phyllanthus emblica* Linn) and *Vacha* (*Acorus calamus* Linn.) were prepared and homogenously mixed to prepare *Rodhradi Lepa*. Step by step pharmaceutical procedures were carried out according to classical reference and SOP. Loss during the process, total yield is noted. Pharmacological action of the *Rodhradi Lepa* is discussed In brief.

INTRODUCTION

Bhaishajya Kalpana is a branch of Ayurveda that deals with Basic principles of Pharmaceutics. Ayurvedic classics are the treasure of internal and external medicaments. There are different medications for internal and external use. *Lepa Kalpana* is prominent amongst external applications which is utilized at OPD as well as IPD level. *Lepas* are pastes of dry or wet drugs anointed on skin. *Lepa Kalpana* is used for the treatment of skin disorders like *Kushtha*, *Visarpa*, *Kshudra rogas* and *Netra rogas* etc. Herbal drugs, minerals, metals and products of animal origin are used for *Lepana karma*.

Rodhradi Lepa is *Tarunya Pitikahara Lepa*. It is used for the treatment of Acne. Ingredients of this *Lepa* are of Herbal origin. *Rodhra* (*Symplocos racemosa* Roxb.), *Dhatri* (*Phyllanthus emblica* Linn) and *Vacha* (*Acorus calamus* Linn.) are the three ingredients of the *Rodhradi Lepa*^[1].

In the present study *Rodhradi Lepa* was prepared following the classical reference, pharmaceutical guidelines and SOP. *Churna* of the *Rodhra*, *Dhatri* and *Vacha* was prepared following

standard operating procedure and process from purchase of drugs to packing was documented step by step.

MATERIALS AND METHODS

Literature Review

All the data was collected from classical texts and pharmaceutical procedure.

Pharmaceutical Study

Procurement of dry drugs

The drugs required for the preparation of *Rodhradi Lepa* are three in number and they are as follows.

1. *Rodhra Twak* (bark of *Symplocos racemosa* Roxb.)
2. *Dhatri Phala* (fruit of *Phyllanthus emblica* Linn.)
3. *Vacha Mula* (rhizome of *Acorus calamus* Linn.)

Drug procurement date: 21st February 2022

All these three drugs were procured in dried form, from the Pharmacy unit of Gomantak Ayurved Mahavidyalaya and Research Centre, Goa.

The quantity of the drugs taken

1. *Rodhra Twak* (bark) - 5kg
2. *Dhatri Phala* (fruit) - 5kg
3. *Vacha Mula* (rhizome) - 5kg

Storage pattern: Drugs were stored in air tight containers.

Shodhana of the Drugs (Purification)

Date: 22nd February 2022

The visible dried leaves, seeds and wooden pieces were carefully removed from the raw drugs.

Access this article online	
Quick Response Code	
	https://doi.org/10.47070/ijapr.v11i8.2923
Published by Mahadev Publications (Regd.) publication licensed under a Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International (CC BY-NC-SA 4.0)	

Table 1: Weight of drugs before and after Purification

Sr.no	Name of the drug	Part used	Weight of drugs before purification	Weight of drugs after purification	Loss
1	<i>Rodhra</i>	(<i>Twak</i>) Bark	5 kg	4990 gm	10 gm
2	<i>Dhatri</i>	(<i>Phala</i>) Fruit	5 kg	4980 gm	20 gm
3	<i>Vacha</i>	(<i>Mula</i>) Rhizome	5 kg	4992 gm	8 gm

After the procedure all the three drugs were stored in separate air tight container.

Drug Identification

Submission of Drug Samples to the Authority

1. *Rodhra Twak* (bark): 100 gm
2. *Dhatri Phala* (Fruit): 100 gm
3. *Vacha Mula* (Rhizome): 100 gm

Submission date: 23rd February 2022

Identification Authority: Dr. Sangram Kesari Das, Professor and HOD, department of Dravyaguna Vijnana, Gomantak Ayurveda Mahavidyalaya and Research Centre, Goa.

Identified drugs result date: Drugs were identified by the above said Authority as *Rodhra*, *Dhatri* and *Vacha* and the results were handed over to me as genuine drugs on 28th February 2022.

Drying of drugs

The three drugs are separately taken in steel trays. These trays were kept in the shade.

The dates and timings of drying are as follows:

- First day: 03/03/2022 from 9am to 4.30pm
- Second day: 04/03/2022 from 9am to 4.30pm
- Third day: 05/03/2022 from 9am to 4.30pm

After drying, each day the drugs were separately stored in the tins.

Table 2: The weight of drugs before and after drying

Sr. no	Name of the drug	Weight of drugs before drying	Weight of drugs after drying	Loss
1	<i>Rodhra Twak</i>	4890 gm	4775gm	115gm
2	<i>Dhatri Phala</i>	4880 gm	4800gm	80gm
3	<i>Vacha Mula</i>	4892 gm	4792gm	97gm

Date of measurement of weight of drugs before drying: 3rd March 2022

Date of measurement of weight of drugs after drying: 5th March 2022



Fig 1: Drying of drugs



Fig 2: Pulverization of drugs (Churnikarana)



Fig 3: Sieving of Churna

Pulverization of drugs

Date: 8th March 2022

Venue: Pharmacy unit of Gomantak Ayurveda Mahavidyalaya and Research Centre, Shiroda.

Instrument:

1. Weighing Machine
2. Hammer Mill Pulverizer

Procedure

1. All the drugs were separately weighed.
2. All the drugs were pulverized in Hammer mill pulverizer separately.
3. After pulverizations *Churnas* were weighed separately

Precaution

1. Hygiene was maintained throughout the procedure
2. Spillage was avoided to prevent loss.
3. Hair cap, mask and gloves were used while handling the drugs.

Observation

Characteristic odour of each drug was appreciated during and after the pulverization.

Table 3: Weight of drugs before and after Pulverization

S.no	Name of the drug	Weight of drugs before pulverization	Weight of drugs after pulverization	Loss
1	Rodhra	4 kg	3480 gms	520 gms
2	Dhatri	4 kg	3577 gms	423 gms
3	Vacha	4 kg	3460 gms	540 gms

After pulverization the *Churnas* were separately stored in the air tight container.

Sieving of Churna

Date: 9th March 2022

Procedure: The three drugs were separately sieved using 80 number mesh.

Table 4: Weight of drugs before and after sieving

S.no	Name of the drug	Weight of drugs before sieving	Weight of drugs after sieving	Loss
1	Rodhra	3480 gm	3270 gm	210 gm
2	Dhatri	3577 gm	3397 gm	180 gm
3	Vacha	3460 gm	3300 gm	160 gm

Preparation of Rodhradi Lepa

Date: 11th March 2022

Quantity of the raw drugs

1. *Rodhra Churna*: 3kg
2. *Dhatri Churna*: 3kg
3. *Vacha Churna*: 3kg

Procedure

All the *Churnas* are taken in a bigger size, black coloured *Khalwa Yantra* and *Mardana* was done continuously for 3 hours from 10.30 am to 1.30 pm continuously. After the procedure we got the homogenous mixture, which was stored in air tight container.

Packing of the Lepa

Date: 14th March 2022

Procedure

Step 1: 100gm of the mixture was packed in polythene bags. 100 similar samples were packed

Step 2: Each sample is kept inside a plastic container for extra safety.

Dispensing

As per the requirement of the patient, the samples of *Rodhradi Lepa* were dispensed.

Method of preparation of Rodhradi Lepa at the time of its application

One to two teaspoons of the *Lepa Churna* is mixed with sufficient quantity of water and it is properly mixed in a bowl using a spatula or spoon. When it is completely and homogeneously mixed and

when it attained semisolid consistency, it was advised to apply on *Tarunya Pitika*.

RESULT

Total weight of the raw drugs was 15kg.

Total weight of the medicine was 9967gm.

Loss was 5033gm.

DISCUSSION

First of all, after procuring the drugs, they were cleaned for all the Physical impurities like dried leaves, sticks, etc. Such *Samanya shodhana* of the drugs is very important before preparation of any formulation to avoid contamination. After the identification by concerned authority raw drugs were dried. Drying of the drugs was done in shade (*Chayashushka*). Drying in the Sun was avoided to prevent loss of volatile components of the drugs. Drying helps in loss of extra moisture of the drugs so that they can be preserved for long time. For *Anupa Desha* like Goa, proper drying is very important step for preservation of drugs. Also proper drying is necessary for proper pulverization of the drugs.

After drying the *Rodhra*, *Dhatri* and *Vacha* were cut into small pieces using a sharp sickle and were pulverized separately in Hammer mill pulverizer.

After pulverization *Churnas* were sieved separately. Sieve no.80 was used for sieving. Fine *Churnas* of *Rodhra*, *Dhatri* and *Vacha* were prepared. *Lepa* should have fine *Churna* so that the absorption of the drug and penetration of active principle through

the skin is possible. After purification loss occurred in *Rodhra* was 10gm, in *Dhatiri* it was 20gm and in *Vacha* it was 10gm. 100gm of each drug was submitted for drug identification. After drying there was further loss i.e., 115gm in *Rodhra*, 80gm in *Dhatiri* and 97gm in *Vacha*.

At the time of pulverization we have taken each drug in 4kg quantity. After pulverization again there was a loss of 520gm in *Rodhra*, 423gm in *Dhatiri* and 540gm in *Vacha*.

After sieving there is further loss of 210gm in *Rodhra*, 180gm in *Dhatiri* and 160gm in *Vacha*. After all these procedures and the loss occurred, had 3270gm of *Rodhra*, 3397gm of *Dhatiri* and 3300gm of *Vacha*.

After the preparation of *Churnas*, they were mixed in equal quantity and triturated in *Khalwa yantra* to prepare homogenous mixture of *Rodhradi Lepa*. Ratio of the drugs *Rodhra: Dhatiri: Vacha* is 1:1:1 based on *Anukta Paribhasha*^[2]. The prepared *Lepa churna* was packed in polythene bag and air tight container to prevent it from moisture and preserve it for longer period.

For preparation of the *Rodhradi Lepa* for facial Application (*Mukhalepa*), *Jala* was added to the Homogenous mixture of powder and was triturated in *Khalwa yantra*. Base for the *Rodhradi Lepa* is not mentioned in the *Gadanigraha*. Therefore following *Anukta Paribhasha*, *Jala* was used^[3]. Characteristic pleasant smell of the *Lepa* was appreciated.

Rodhra acts mainly on *Kapha* and *Pitta*. Its *Karmas* are considered as *Shothaghna*, *Vrana-Shodhaka*, *Vrana ropaka*, *Asrugadoshahara*, *Raktasthambhaka*, *Kledavishoshaka*, *Sandhaniya*, *Sankochaka*. All these *Karmas* are helpful to relieve the *Tarunya Pitika* because such cleansing, healing, drying the oiliness, reducing the size of *Vrana*, reducing the size of pores all with their combined effect causes, *Samprapti vighatana* and cures *Tarunya Pitika*.

Dhatiri is a *Rakta Shodhaka dravya* which cleanses the blood. Having antioxidants it slows down the cell damage and *Vranaropaka* action heals *Tarunya Pitika*.

Tikta rasatmaka Vacha is the purifier of blood and it fights the infection as it is having anti-inflammatory and cleansing actions.

Jala binds all the ingredients together and performs *Preenana* of the *Twacha* and increases permeability and penetrability by which the active principles of drug enter into the *Dhatus* like *Rakta* and reaches the site of *Tarunya Pitika*.

CONCLUSION

Out of 15kg raw drugs, 9967kg of *Lepa Churna* was prepared. There was a loss of 5kg, due to cleaning, drying, pulverizing and sieving. Homogenous mixture of *Rodhradi Lepa* was with characteristic pleasant odour and light brown colour.

Acknowledgement

I am grateful to Dr.Yeriswamy H. for guiding me throughout the process. Thankful to Dr.Aditya Arvind Samant and Dr. Sudhindra A.N. for Co-guiding. I am grateful to Dr.Sangram Kesari Das for all the guidance regarding Drug identification.

REFERENCES

1. Shodhala, *Gadanigraha* part III, Reprint edition, Varanasi, Chaukhamba Sanskrit Sansthan, 2016, Kshudrarogadhikar, Shloka no. 91, Pg. no.387.
2. Sharangadhara, *Sharangadhara Samhita*, Reprint Edition, Varanasi, Chaukhamba Surbharati Prakashan, 2010, Purva khanda, Chapter No.1, Shloka No. 49, Page No.17.
3. Sharangadhara, *Sharangadhara Samhita*, Reprint Edition, Varanasi, Chaukhamba Surbharati Prakashan, 2010, Purva Khanda, Chapter No.1, Shloka No. 50, Page No. 17.

Cite this article as:

Amonker Rashmina Santosh, Yeriswamy H. Sudhindra A.N, Aditya Arvind Samant. A Pharmaceutical Study of Rodhradi Lepa. International Journal of Ayurveda and Pharma Research. 2023;11(8):1-4.

<https://doi.org/10.47070/ijapr.v11i8.2923>

Source of support: Nil, Conflict of interest: None Declared

*Address for correspondence

Dr.Amonker Rashmina Santosh

PG Scholar,

Rasashastra and Bhaishajya

Kalpana Department, Gomantak

Ayurved Mahavidyalaya, Shiroda,

Goa, India.

Email: rashmina3725@gmail.com

Disclaimer: IJAPR is solely owned by Mahadev Publications - dedicated to publish quality research, while every effort has been taken to verify the accuracy of the content published in our Journal. IJAPR cannot accept any responsibility or liability for the articles content which are published. The views expressed in articles by our contributing authors are not necessarily those of IJAPR editor or editorial board members.