



E-ISSN: 2278-4136
P-ISSN: 2349-8234
www.phytojournal.com
JPP 2024; 13(5): 68-71
Received: 15-07-2024
Accepted: 16-08-2024

Dr. Veena Vitthal More
PG Scholar, Department of
Rasashastra and Bhaishajya
Kalpana, YMT Ayurvedic
Medical College, Kharghar, Navi
Mumbai, Maharashtra, India

Dr. Sheela Pargunde
H.O.D & Professor, Department
of Rasashastra and Bhaishajya
Kalpana, YMT Ayurvedic
Medical College, Kharghar, Navi
Mumbai, Maharashtra, India

Preparation and pharmaceutical analysis of *Patoladi malahara* in athlete's foot

Dr. Veena Vitthal More and Dr. Sheela Pargunde

DOI: <https://doi.org/10.22271/phyto.2024.v13.i5a.15059>

Abstract

Introduction: Everyone usually takes care of their face, but feet are always given lower priority. Many lotions and creams are applied to the skin. Face-related problems are generally noticed, but foot infections and dryness are always ignored. Athlete's foot is commonly seen in sportspersons, rural area populations, and those working in fields. Walking through contaminated mud causes itching, dampness, inflammation, and pain in between toes. To cure these, antifungal ointments are used.

Purpose: This study aims to convert the lepa into *Malhara* form so that it will be easy convenient to use, and cost-effective. This herbo-mineral formulation has an anti-fungal activity, *vranashodhan*, *dahaprashaman*, *kandughan* properties.

Materials: Kwatha preparation: -*Bharad of Patola Patra, Neem twak, Triphala. Kalka* preparation: - *churna of Patola patra, Neem twak, Triphala, Shudhha kassis. Tila Taila, Siktha.*

Method: *Kassis shodhan* was done in *bhringraj swaras* for 3hrs in *dola yantra*. *Patoladi siddha kwatha* was prepared. *Patoladi kwatha, Patoladi kalka, shodita kassis, and tila taila* were taken to prepare *patoladi taila*. *Siktha and patoladi taila* were taken in the proportion of 1:5 and *malahar* was prepared. Packaging was done in a glass container.

Result: The study conducted on *Patoladi Malhara* reveals that it spreads evenly on the skin, with a yellowish-green color, has a systematic odour, and no skin irritation was found. pH is 5 which is suitable for skin, moisture content is very minimal.

Conclusion: The prepared *Malahar* was analyzed and can be used in Athlete's foot.

Keywords: *Patoladi malahar*, Kshudra roga, Alaska vyadhi, athletes foot

Introduction

No Wadays, personal hygiene and skincare with special attention to facial care have become fundamental components of everyday living. Even though feet are exposed to a lot of stress, especially in athletes and other physically active individuals, foot care may be neglected. This lack of attention can result in several dermatological problems, such as fungal infections that cause athlete's foot, which is a condition characterized by burning, itching, wetness, swelling, and soreness, especially in the space between the toes. Although anyone can get an athlete's foot, it is usually seen in athletes or people wearing tight, enclosed shoes regularly.

In addition to being painful, fungal infections of the feet can worsen if treatment is not done. Antifungal over-the-counter medications are widely accessible, but traditional and alternative therapies are popular. In this regard, the ancient Indian medical system known as Ayurveda offers abundant knowledge about treating skin conditions.

In Ayurveda, an athlete's foot can be compared with *Alaska vyadhi* that is defined under *Kshudra roga* (minor skin disease). In many classical texts, various *lepa*s are described for external application in treatment protocol. Acharya *Chakrapanidatta* has described *Patoladi lepa* for treatment of *Alasak* in *Kshudraroga Chikitsa Adhyaya* ^[1].

अलसेऽम्लैश्चिरं श्वसक्तौ चरणौ पररलेपयेत्।

पटोलाररष्टकाशीशश्चिफलाश्चिर्ुहम उरुहम उुुः ।

;चक्रदत्त क्षमद्रश्चश्चकत्सा अध्यायद्

This study aims to convert the *Patoladi lepa* into *Patoladi malahara* form so that it will be easy, convenient to use, and cost-effective. This herbo-mineral formulation has an anti-fungal activity, *vranashodhan*, *dahaprashaman*, and *kandughan* therapeutic effect.

AIM: Preparation and Pharmaceutical analysis of *Patoladi malahara* in Athlete's Foot

Corresponding Author:

Dr. Veena Vitthal More
PG Scholar, Department of
Rasashastra and Bhaishajya
Kalpana, YMT Ayurvedic
Medical College, Kharghar, Navi
Mumbai, Maharashtra, India

Objectives

- To prepare *Patoladi Taila*.
- To prepare *Patoladi Malahara*.
- To analyse *Patoladi Malahara*

Materials and Methods**Materials**

Raw materials like *Patol*, *Nimba twak*, *Ashudha Kassis*, *Haritaki*, *Bibhitaki*, *Amalaki*, and *Sikta Taila* were procured from nearby markets. All raw materials were selected and identification was done with their accepted properties mentioned in classical texts.

Method of preparation of *Patoladi taila***Table 1:** Ingredients *Trichosanthes dioica* Roxb

Sr. No.	Ingredients	Latin name	Part used (as per API)	Quantity
1	<i>Patol</i>	<i>Trichosanthes dioica</i> Roxb.	<i>Patra</i>	20gm
2	<i>Nimba twak</i>	<i>Azadirachta indica</i> Juss.	<i>Twak</i>	20gm
3	<i>Haritaki</i>	<i>Terminalia chebula</i> Retz.	Dried Fruit	20gm
4	<i>Bibhitaki</i>	<i>Terminalia bellerica</i> Roxb.	Dried Fruit	20gm
5	<i>Amalaki</i>	<i>Emblica officinensis</i> Gaertn.	Dried Fruit	20gm
6	<i>Kassis</i>	Ferrous sulphate	Impure form	50gm
7	<i>Bhringaraja swarasa</i>	<i>Elipta alba</i> Niss.	Leaves	As required

Step 1 - *Kassis shodhan* [2] (Refer Table No. 1)

कासीसं िंग राजोत्थवाररणा घश्टकाव्दयर् ।

सक त् श्वववन्नं प्रयत्नेन शमश्वदं आयाश्वत अनमत्तर्ार् ।। र.त.
21/230

For *kassis shodhan*, *ashudha kassis* was taken 50 gm. *Swedan* with *bhringaraja swarasa* for 3 *ghatika* (72 mins) was done with help of *dolayantra*. Then the mixture was dried & *shudha kassis* was obtained.

Step 2 - *Kwatha* preparation [3] (Refer Table No. 1) Coarse powder (*Hairitaki*, *Bibhitaki*, *Amalaki*, *Patola*, *Nimba twak* each 20 gm) was soaked overnight in 16 parts of water. Then it was reduced to ¼ part and hence *kwatha* was obtained.

**Table 2:** *Patol*

Sr. No.	Ingredients	Quantity
1	<i>Patol</i>	4.2 gm
2	<i>Nimba twak</i>	4.2 gm
3	<i>Haritaki</i>	4.2 gm
4	<i>Bibhitaki</i>	4.2 gm
5	<i>Amalaki</i>	4.2 gm
6	<i>Shudha Kassis</i>	4.2 gm

Step 3 - *Kalka* preparation [4] (Refer Table No.2) *Churna* of *Patola*, *Nimba twak*, *shuddha Kassis*, *Haritaki*, *Bibhitaki*, and *Amalaki* each 4.2 gm was taken. A required quantity of water was added to form a *kalka*.

**Table 3:** Ingredients and Quantity

Sr. No.	Ingredients	Quantity
1	<i>Kalka</i>	25.2 gm
2	<i>Tila Taila</i>	100 ml
3	<i>kwatha</i>	400 ml

Step 4 - *Patoladi Taila* [5] (Refer Table No.3)

Tila Taila was taken in the vessel and heated on a mild flame. Prepared *Kalka* was added in *taila* and heated. Then above prepared *kwatha* was added and heated with intermittent

stirring till *Sneha Siddhi lakshan* appeared. Obtained *siddha Taila* was filtered using a clean cloth.



Table 4: Patoladi siddha Taila

Sr. No	Ingredient	Quantity
1	Siktha	10 gm
2	Patoladi siddha Taila	50 ml

Preparation of *Patoladi malahara* ^[6] (Refer Table No.4) For the preparation of *Patoladi malahara* accurately weigh 50ml (5 parts) *Patoladi siddha taila* was taken in a clean stainless-steel vessel and heated on mild flame. To this 10gm (1 part) of grated *sikta* (beeswax) was added and when beeswax was homogeneously mixed in *taila* it was removed from the flame filtered in another vessel using a clean cloth and allowed to cool then stored in a glass container.



Observation and Results

Table 5: Organoleptic Parameters

Sr. No.	Organoleptic Parameters	Patoladi Malahara.
1.	Shabda	No specific sound
2.	Sparsha	Smooth, sticky
3.	Rupa	Yellowish green, semisolid
4.	Rasa	Not applicable
5.	Gandha	Characteristic smell

Table 6: Physico-Chemical Tests

Sr. No.	Physico-Chemical Tests	Patoladi Malahar
1.	pH	5
2.	Loss on drying	0.19%
3.	Skin Irritation test	Skin compatible No irritation found.
4.	Spreadability	Spreads Smoothly
5.	Solubility in water	Not soluble

Discussion

The fusion method is an ideal method for the preparation of *Patoladi Malahara*. Properties of *patola* are *rasa-tikta, katu; guna- snigdha, laghu; virya- usha; vipaka- katu*.

The pharmacological action of *patola* is it is *tridoshashamak, vednastapana, vrana ropapana, kushtaghna*. *Patola Patra* has *pittashamak* and *sheetal* properties ^[7].

- Properties of *Nimba patra* are *rasa – tikta, kashaya; guna- laghu; vipaka- katu; virya- sheeta*. Useful in various *kapha pitta janya vikara*. External application of *nimba leaves* and *twak* has *jantughna, vrana pachaka, vrana shodhan, dourgandiyahara, dahaprashaman, and kandughna* action. *Nimba taila* is used in itching conditions. It contains *nimbudin* which is effective in skin diseases ^[8].
- Properties of *Haritaki* are *rasa –pancharasa (lavana rasa absent); guna- laghu, ruksha; vipaka- madhura; virya- ushna; prabhav- tridoshahara*. As it is *Madhura-tikta-Kashaya* it has *pittaghan* property, *katu-tikta-kashaya* so it has *kaphaghna* property, *amla - Madhura* hence *vataghna* property. *Kashaya rasa* has *twachashudhi* (body purifying) action. It has *vrnashodhak, vranropak, and krumighna* property ^[9].
- Properties of *bibhitaki* are *rasa –Kashaya; guna- Laghu, Ruksha: Vipaka- madhura: virya- ushna*. It has *kaphaghna* property due to *ruksha-laghu-kashaya, pittaghna* due to *Kashaya-madhura*, and *vatashamak* due to *ushna* property ^[10].
- Properties of *Amalaki* are *rasa –pancharasa (lavana rasa absent), guna- laghu, and ruksha. sheeta; vipaka- madhura; virya- ushna*. It has *tridoshaghna* property (*amla rasa-vatanashak; Madhur-sheet pittanashak;ruksha-kashya kaphanashak* and also it has excessive *pittashamak* property. It has *dahashamak, kushtaghna* ^[11].
- Properties of *Kassis* are *Rasa- Amla, Tikta, Kashaya; guna- grahi, vipaka- katu veerya- ushna, and sheetaguna* on *bhayasparasha* It is *Vata-sleshmahara, keshya, Netrya, kandughna, vishaghna, switrahara* ^[12].
- Properties of *bhringaraja* are *rasa - katu, tikta; guna- laghu, ruksha. Sheet; vipaka- katu; virya- ushna*. It has *kaphavatashamak, vranaropak, vranashodak* property. Overall, it can be mentioned that *bhringraj* can be the best medicine for *pachan kriya* ^[13].

Honey is a well-known wound-healing substance. So, beeswax also carries similar properties. *Tila Taila* and *siktha* enhance drug penetration, *vatahara, vrana ropana, vrana shodhan* ^[14].

Instead of using *Tila Taila*, *Patoladi siddha Taila* is used while preparation of *Malahara* to increase its potency. Prepared *Malahara* spreads evenly on the skin, no skin irritation was found. pH was 5 which is suitable for skin, moisture content was 0.19% which is very minimal. Therefore, this *malahara* can be used in athlete's foot

Conclusion

Malahara is a semisolid preparation that can be correlated with ointment preparations in modern pharmaceuticals. The ashudha '*Kassis*' used to prepare *Patoladi malahara* was

subjected to 'Shodhan' to avoid toxic effects. After this, Patoladi Taila was prepared, followed by the preparation of Patoladi Malahara. Beeswax was added to achieve the desired consistency. *Patoladi malahara* meets all the criteria of analytical studies and is comparatively handier and more feasible than other remedies like lepa applications. This *Patoladi malahara* is simple, cost-effective, and pre-clinical and clinical studies to revalidate the preparation will pave the way for its use in practice."

Conflict of interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

References

1. Tripathi I. Chakradatta of Shri Chakrapanidatta Vaidyaprabha Hindi Commentary. Reprint ed. Varanasi: Chauhambha Sanskrit Bhawan. Kshudraroga Chikitsaparakaram, Verse No; c2015, 16, p. 312.
2. Shastri K. *Rasatarangini of Sadanand Sharma*. Reprint ed. Delhi: Motilal Banarsidas Prakashak; Upadhatwadi Vidnyaniyam, 21/230, p. 564.
3. Angadi R. *A Textbook of Bhaishajya Kalpana Vidnyana*. 2nd revised ed. Varanasi: Chaukhambha Surbharati Prakashan; c2016. p. 252.
4. Angadi R. *A Textbook of Bhaishajya Kalpana Vidnyana*. 2nd revised ed. Varanasi: Chaukhambha Surbharati Prakashan; c2016. p. 251.
5. Angadi R. *A Textbook of Bhaishajya Kalpana Vidnyana*. 2nd revised ed. Varanasi: Chaukhambha Surbharati Prakashan; c2016. p. 251.
6. Shastri K. *Rasatarangini of Sadanand Sharma*. Reprint ed. Delhi: Motilal Banarsidas Prakashak; Upadhatwadi Vidnyaniyam, 6/62-63, p. 115.
7. Gogate VM. *Dravyagunavighyan*. Reprint ed. Pune: Vaidyamitra Prakshan; c2008. p. 483.
8. Gogate VM. *Dravyagunavighyan*. Reprint ed. Pune: Vaidyamitra Prakshan; c2008. p. 474.
9. Gogate VM. *Dravyagunavighyan*. Reprint ed. Pune: Vaidyamitra Prakshan; c2008. p. 688.
10. Gogate VM. *Dravyagunavighyan*. Reprint ed. Pune: Vaidyamitra Prakshan; c2008. p. 535.
11. Gogate VM. *Dravyagunavighyan*. Reprint ed. Pune: Vaidyamitra Prakshan; c2008. p. 267.
12. Shastri K. *Rasatarangini of Sadanand Sharma*. Reprint ed. Delhi: Motilal Banarsidas Prakashak; Upadhatwadi Vidnyaniyam, 21/231-232, p. 564.
13. Gogate VM. *Dravyagunavighyan*. Reprint ed. Pune: Vaidyamitra Prakshan; c2008. p. 552.
14. Beeswax Uses As per Ayurveda, Composition, Research. Available from: <https://www.easyayurveda.com/beeswax-ayurveda-composition-research/>