Received: 14 Jan. 2026 | Revised: 15 Feb. 2026 | Accepted: 30 March. 2026

Research Article

ISBN: 978-81-995400-3-3

"PHARMACEUTICAL ANALYSIS OF *TRIPHALADI GHANVATI*."

Dr. Sunita Kumari Bijarniya*[1] Dr. Ritu Kapoor[2]

AFFLIATIONS:

*1. PhD Scholar, Agad Tantra Department, Institute of Teaching and Research in Ayurveda, Jamnagar, Gujrat, India, Pin- 361008

2. Dr. Ritu Kapoor, Professor & HoD, Agad Tantra Department, Dr. S. R. Rajasthan Ayurved University, Jodhpur, Rajasthan, India, Pin- 342037

CORRESPONDENCE:
Sunita Kumari Bijarniya
EMAILID:
bijju457@gmail.com

FUNDING INFORMATION:
Not Applicable

ABSTRACT:

Introduction: Ayurveda, the ancient Indian system of medicine, emphasizes the use of natural formulations to restore balance and health by addressing the root causes of diseases. To seeing global interest in traditional medicine, Ayurvedic polyherbal formulations have gained wide recognition for their safety and efficacy. **Objective:** To standardize the preparation method of *Triphaladi Vati*, a classical Ayurvedic *Ghanvati* preparation. **Materials and Methods:** *Triphaladi Vati* is a herbo- mineral formulation mentioned in classical texts called as *Astanga Hrudaya Uttar Sthana* 22th chapter verse no- 81-83 in the management of *Mukharogas*. It contains *Triphala, Bhunimba, Chitraka, Madhuyashthi, Sarshapa, Trikatu, Musta, Haridra Dvya, Yavkshar, Vrakshamala, Amlvetaus, Aswattha, Jamun, Amra, Arjuna, Arimeda* and *Khadir* as ingredients. This *Gutika* is put into the mouth and sucked by the patient, it treats all critical *Rogas* of *Kantha, Austha, Talu.* Especially it treats *Rohini, Mukha Shosha* and *Gandha Rogas.* The pharmaceutical procedures adopted in this formulation are *Churna Nirmana, Kwatha Nirmana* and *Ghanvati Nirmana*. **Results:** The *Vati* exhibited acceptable organoleptic qualities and physicochemical properties consistent with Ayurvedic Pharmacopeia standards of *Vati.* Moisture content was within the permissible range, viscosity values indicated proper consistency and purity. **Discussion:** The procedures were conducted step by step in accordance with classical references and established Standard Operating Procedures (SOPs) of *Vati* preparation. Process loss and total yield were carefully recorded. Organoleptic characters, and physicochemical parameters were evaluated. Pharmacological action of the *Triphaladi Vati* is discussed in brief. **Conclusion:** The standardized preparation of *Triphaladi Vati* was found to comply with classical Ayurvedic methods and modern pharmaceutical parameters. Its chemical profile and therapeutic potential support its traditional use in managing many mouth conditions.

Keywords: *Mukharoga*, Organoleptic characters, physicochemical parameters, *Churna Kalpana, Triphaladi Vati, Vati Kalpana*

Introduction

Ayurveda, the ancient Indian system of medicine, emphasizes the use of natural formulations to restore balance and health by addressing the root causes of diseases. To seeing global interest in traditional medicine, Ayurvedic polyherbal formulations have gained wide recognition for their safety and efficacy. Pharmaceutical study is the study of drug manufacturing. *Bhashajya Kalpana* is the pharmaceutical branch which deals with *Aushada nirmana*. This includes Panchavidha Kashaya Kalpana and their *Upakalpana*. The Ayurveda pharmaceutics is a unique field which comprises of various dosage forms. *Ghanvati* preparations are one among these dosage forms having a great significance in the therapeutic aspect. *Triphaladi Vati* is a herbo- mineral formulation mentioned in classical texts called as *Astanga Hrudaya Uttar Sthana* 22th chapter verse no- 81-83 in the management of *Mukharogas*.[i] It contains *Triphala, Bhunimba, Chitraka, Madhuyashthi, Sarshapa, Trikatu, Musta, Haridra Dvya, Yavkshar, Vrakshamala, Amlvetaus, Aswattha, Jamun, Amra, Arjuna, Arimeda* and *Khadir* as ingredients. This *Gutika* is put into the mouth and sucked by the patient, it treats all critical *Rogas* of *Kantha, Austha, Talu.* Especially it treats *Rohini, Mukha Shosha* and *Gandha Rogas.* The preparation was done as per the reference sited in the classics. The process involved from the purchase of drug to packing was documented in a step-by-step procedure.

MATERIALS AND METHODS

Literature Review

Table 1: Ingredients and ratio of ingredients in *Triphaladi Vati.* (A.H.U. 22/ 81- 82)

SN	Ingredients	Latin Name	Part Used	Quantity
1.	*Haritaki*[ii]	Terminelia chebula Retz.	Fruit	1/3 part
2.	*Aamalaki*[iii]	Emblica officinalis	Fruit	1/3 part
3.	*Vibhitaki*[iv]	Terminelia bellerica	Fruit	1/3 part
4.	*Bhunimba*	Andrographis paniculata	All parts *(Panchanga)*	1 part
5.	*Chitraka*	Plumbago zeylanica	Root	1 part
6.	*Madhuyashthi*	Glycyrrhiza glabra	Root	1 part
7.	*Sarshapa*	Brassica campestris	Seed	1 part
8.	*Pippali*	Piper longum	Unripe Fruit- dried	1 part
9.	*Shunthi*	Zingiber officinale	Rhizome- dried	1 part
10.	*Marich*	Piper nigrum	Fruit- dried	1 part
11.	*Musta*	Cyperus rotendus	Rhizome- dried	1 part
12.	*Haridra*	Curcuma longa	Rhizome	1 part
13.	*Daruharidra*	Barberis aristata	Stem	1 part
14.	*Yavkshar*	Hordeum vulgare	Ash	1 part

15.	*Vrakshamala*	Garcinia indica	Fruit-unripe	1 part
16.	*Amlvetaus*	Garcinia pedunculata roxb.	Fruit	1 part
17.	*Aswattha*	Ficus religiosa	Stem-bark	1 part
18.	*Jamun*	Syzygium cumini	Seed	1 part
19.	*Amra*	Mangifera indica	Stem-bark	1 part
20.	*Arjuna*	Terminalia arjuna roxb.	Stem-bark	1 part
21.	*Arimeda*	Acacia farnisiana wild	Stem-bark	1 part
22.	*Khadir*[v]	Acacia catechu wild	*Twak sar (kattha)*	1 part

All the data was collected from classical texts and pharmaceutical procedures involved in the preparation of *Triphaladi Vati* were carried out in PG Department of *Rasa Shastra and Bhaishajya Kapana*, Dr. Sarvepalli Radhakrishnan Rajasthan Ayurved University, Jodhpur.

Collection and authentication of raw material: All the ingredients were collected from RAU herbal garden and from *Ayurvedic* raw drugs market after well identification.

Total pharmaceutical study was carried out in following stages:

1) All the ingredients were taken in dry form in the prescribed ratio, and made *Yavkoota* of them, then mixed well.
2) Some *Yavkoota* powder (½ kg) kept separate for *Prakshepa*.
3) As the *Yavkoota* powder was 3 kg, so 24 kg water (3x8= 24 kg) added and boiled it well.
4) Boiled till ¼ part of water remained, this we got 6 kg decoction.
5) Then boiled the decoction more and more till it lost all the water and appearance gets as *Syava* (Semisolid).
6) Added the separated *Prakshepa* powder to it, then let it dry till it becomes ready to making pills/ *Vati.*
7) The *Triphaladi Ghanvati* (500mg each) were made in the pill maker machine.
8) Each packing was done with 28 tablets for a seven day follow up.

Yavkoota Nirmana

Reference: Sharangadhara Samhita Madyama khanda *Churna Nirmana.*[vi]

Materials: All 20 drugs equal– 180gm

Principle/Method: Crushing

Apparatus: Grinder (for breaking herbs to small size) and Pulverizer (for making coarse powder).

Procedure: Dry herbs were mixed together and grinded to small pieces then *Yavkoota* (coarse powder) made for *Kwatha* preparation.

Observation: Coarse (equally grinded Coarse powder obtained)

Precaution: Care should be taken to avoid spillage while pulverizing.

Table 2: Result of preparation of *Yavkoota*

Initial weight	Final weight	Loss of weight
3600 gm	3500 gm	100 gm

Kwatha Nirmana

Reference: *Sharangadhara Samhita Madyama khanda Kwatha Nirmana.*[vii]

Materials: *Yavkoota powder*

Principle/Method: Boiling

Apparatus: Utensil, heating Bhatti.

Procedure: 3.5 Kg *Yavkoota* soaked into 28 litres (8 times water) for 3 hours, then boiled till fourth part remained.

Observation: *Kwatha* obtained.

Precaution: Care should be taken to extra loss of water and steam should be mild through process.

Table 3: Result of preparation of *Kwatha*

Initial weight	Final weight	Loss of weight
28 Litres	6.4 Litres	21.6 Litres

Ghana Nirmana

Reference: *Sharangadhara Samhita Madyama khanda Ghana Nirmana.*

Materials: *Kwatha*

Principle/Method: slow heating

Apparatus: Utensil, heating Bhatti.

Procedure: Heated slowly till the *Kwatha* lost its water content and become semisolid preparation.

Observation: semisolid/ Ghana obtained.

Precaution: Care should be taken to keep dim fire.

Table 4: Result of preparation of Ghana

Initial weight	Final weight	Loss of weight
6.4 Litres	1.160 gm	5.24 Litres

Ghana Vati Nirmana

Reference: *Sharangadhara Samhita Madyama khanda Ghana Vati Nirmana.*[viii]

Materials: Ghana

Principle/Method: Pill making of uniform size.

Apparatus: Utensil, Pill maker machine.

Procedure: Obtained Ghana was air dried, adding *Prakshepa*, kept for 2- 3days than when it is able to make Vati form, small parts of Ghana taken inserted to pill maker and Vati of 500 mg made. Kept to air dry in flat plates for 1-2 days.

Observation: *Ghana vati* of 500 mg obtained.

Precaution: Care should be taken to not to oven dry and *Prakshepa* should be fine.

Table 5: Result of preparation *Ghanvati*

Initial weight	Final weight	Loss of weight
1.160 gm	1.140 gm	0.20 gm

OBSERVATION& RESULTS:

We got the *Gutika* (500 mg each) of *Triphaladi Vati* with properties as below:

Table 6: Showing Organoleptic properties of *Triphaladi Vati:*

Properties	***Triphaladi Vati***
Color	Blackish brown
Touch	Hard *Ghanvati*
Odor	Characteristic
Taste	*Tikta,* bitter

Physio-chemical parameters

Physio-chemical parameters like Loss on drying, Ash value, water soluble extract, methanol soluble extract, pH value and hardness of the Vati are mentioned in table

no.6.

Table 6: Showing physio- chemical properties of *Triphaladi Ghan Vati:*

S. No.	Parameters	Result
1.	Loss on drying	12.310% w/w
2.	Ash value	7.920%w/w
3.	Water soluble extract	52.2%
4.	Methanol soluble extract	61.8%
5.	pH value	6.8
6.	Hardness of the Vati	4.4

High performance thin Layer Chromatography (TLC) report of *Triphaladi Ghana Vati*:

Densitometry scanning of the HPTLC pattern showed 8 spots at corresponding Rf values 0.06, 0.20, 0.24, 1.40, 1.65, 0.60, 0.22, 0.42 in short wave UV 254 nm and 13 spots at corresponding Rf values 0.32, 0.11, 0.13, 0.61, 0.33, 0.19, 0.92, 0.04, 0.51, 0.39, 0.10, 0.70, 0.14 obtained in long wave UV 366 nm (Table 7). Though it is not possible to identify particular chemical constituent from the spot obtained, the pattern may be used as a reference standard for further quality control researches

Table 7: Showing HPTLC profile/ Rf values of *Triphaladi Vati:*

Extract	**Solvent system**	**Wave length**	**No. of spots**	**Maximum Rf value**
Methanol extract	Toluene: ethyl acetate: acetic acid (14:4:2)	At 254 nm	8	0.06, 0.20, 0.24, 1.40, 1.65, 0.60, 0.22, 0.42
		At 366 nm	13	0.32, 0.11, 0.13, 0.61, 0.33, 0.19, 0.92, 0.04, 0.51, 0.39, 0.10, 0.70, 0.14

How to use: *Ghan Vati* is kept into mouth and sucked. Dosage according to patient's condition.

DISCUSSION

This research represents a major milestone in the standardization of *Triphaladi Ghana Vati.* Pharmacognostic evaluation confirmed the structural integrity and authenticity of all raw herbal components, proving that the manufacturing process does not degrade the raw materials. Furthermore, the formulation met all physico-chemical quality benchmarks, showing no signs of contamination. High-Performance Thin-Layer Chromatography (HPTLC) identified specific bioactive markers (8 spots at 254 nm and 13 at 366 nm), establishing a robust chemical fingerprint for future quality control. The HPTLC fingerprint serves to support the standardization process and provides a reliable reference for future quality control. Overall, the results of this study affirm that the quality of *Triphaladi Ghana Vati* is thoroughly standardized, ensuring its safety, efficacy, and reproducibility for clinical application. This standardization not only enhances the therapeutic potential of *Triphaladi Ghana Vati* but also fosters greater acceptance and credibility of Ayurvedic formulations within contemporary pharmacological

practice.

Ultimately, these findings validate the formulation's safety and efficacy, bridging the gap between traditional Ayurvedic medicine and modern pharmacological standards.

Discussion on probable mode of action of *Triphaladi Vati-*

Triphaladi Vati has 3 drugs have *Rasayana (Haritaki, Amalaki & Chitraka),* 4 drugs *Kandu- Kushthaghna (Triphala, Haridra- Daruharidra, Amra, Arjun & Erimeda),* 6 drugs useful in *Mukharoga (Khadir, Erimeda, Aswattha, Daruharidra, Marich & Haritaki),* 3 drugs *Deepana-Pachana (Chitraka, Pippali, Marich & Musta),* 3 drugs *Hridya (Vrakshaml, Amlvetus & Arjun),* 3 *Samghrahaka* (*Haritaki, Vrakshaml & Amlvetus*) *properties as main function. Triphaladi Vati* having total 22 drugs, maximum of them, are of *Katu, Tikta* and *Kashaya Rasa*. Drugs have *Laghu, Ruksha and Tikshna Guna*. Maximum drugs have *Ushna Veerya*. 16 drugs have *Katu Vipaka*, six have *Madhura Vipaka*.

CONCLUSION

Pharmaceutical standardization is important for the establishment of an efficient drug. Vati is meant for oral use. *Ghanvati* kept into mouth and sucked thereby making the drug more bioavailable to oral mucosa. The ingredients of ***Triphaladi Vati*** are having *Kushtaghna, Shotha prashamana, Ropana, Sandhana, Shoshana* and *pitta, Rakta* and *Kapha Doshanashaka* properties which are beneficial for the management of *Mukharoga.*

CONFLICT OF INTEREST

None

[i] Vagbhata. Ashtanga Hridayam. Uttar Sthana, Chapter 22 (Mukharoga Pratishedha), verses 81–83 [Internet]. Hyderabad: National Institute of Indian Medical Heritage (NIIMH); [cited 2021 Nov 28]. Available from: https://niimh.nic.in/ebooks/esushruta/?mod=read.

[ii] Central Council for Research in Ayurvedic Sciences (CCRAS). Database on medicinal plants used in Ayurveda & Siddha. Vol. 3. New Delhi: CCRAS; p. 281–5.

[iii] Central Council for Research in Ayurvedic Sciences (CCRAS). Database on Medicinal Plants Used in Ayurveda & Siddha. Vol. 3. New Delhi: CCRAS; p. 11–15.

[iv] Central Council for Research in Ayurvedic Sciences (CCRAS). Database on Medicinal Plants Used in Ayurveda & Siddha. Vol. 3. New Delhi: CCRAS; p. 158–60.

[v] Central Council for Research in Ayurvedic Sciences (CCRAS). Database on Medicinal Plants Used in Ayurveda & Siddha. Vol. 1. New Delhi: CCRAS; p. 216–9.

[vi] Sharangadharacarya. Sharangadhara Samhita. Tripathi B, commentator. Varanasi: Chowkhamba Prakashana; 2017. Chapter 6; p. 116.

[vii] Sharangadharacarya. Sharangadhara Samhita. Tripathi B, commentator. Varanasi: Chowkhamba Prakashana; 2017. Chapter 2; p. 90.

[viii] Sharangadharacarya. Sharangadhara Samhita. Tripathi B, commentator. Varanasi: Chowkhamba Prakashana; 2017. Chapter 7; p. 130.