

Pharmaceutical Standardization of Dhatri Bhallataka Vati

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Submitted: 01-01-2023

Accepted: 08-01-2023

ABSTRACT

Ayurveda is called as the “science of life”. It is the most ancient health care systems in India. It originated from Vedas and is still being updated to fulfill the present health care needs. With the advancement of knowledge and time, metals and mineral drugs started developing as a specialized branch of science known as RASA SHASTRA. BhaishajyaKalpana is an integral part of Ayurveda which deals with the process of preparation of single and compound formulations. Vati is an important preparation in Ayurvedic pharmaceuticals. It is a solid dosage form having advantages like, it can be swallowed easily and fixation of dosage becomes more convenient.

DhatriBhallatakaVati is one such formulation mentioned in Rasatantrasarava siddhaprayogasangraha, PrathamaKhanda, Gutikaparakarana indicated in Amashaya and Udara Roga, Shoola, Amavata, Vataroga, Upadamsha, Sandhivata, Ardangavata and Urusthamba. Dhatri Bhallataka Vati contains Shuddha Bhallataka, Amalaki, Haritaki, Vibhitaki, Maricha, Pippali, Shunti, Krishna Tila and Guda. The pharmaceutical procedures adopted in this study are Shodhana, Churnanirmanana, mardana and preparation of DhatriBhallatakaVati. Till now, no research work has been carried out to standardize the method of preparation DhatriBhallatakaVati. Therefore, the present study has been planned to standardize the method of preparation of DhatriBhallatakaVati according to the method explained in the classics.

Keywords: DhatriBhallataka Vati, Shodhana, Churnanirmanana, Amavata, Pharmaceutical Study

I. INTRODUCTION :

Rasashastra and Bhaishajyakalpana is one of the most important branches of Ayurveda which deals with herbo-mineral preparation. The main objective of the pharmaceutical study is to produce a safe and effective drug. Safety and efficacy depends on the quality of the drug. That's why

pharmaceutical processing plays an important role in Ayurveda.

DhatriBhallatakaVati is a preparation mentioned in Rasatantrasaravasiddhaprayoga sangraha¹, Prathama Khanda, Gutikaparakarana and indicated in Amashaya and UdaraRoga, Shoola, Amavata, Vataroga, Upadamsha, Sandhivata, Ardangavata and Urusthamba. Dhatri Bhallataka Vati contains Bhallataka (Semicarpusanacardium Linn), Amalaki (Embliaofficinalis Linn), Vibhitaki (TerminaliabellericaRoxb), Haritaki (Terminaliachebula Retz), Pippali (Piper longum Linn), Maricha (Piper nigrum Linn), Shunti (ZingiberofficinaleRoxb), Krishna tila (Sesamumindicum Linn) and Guda (Saccharumofficinarum). The main pharmaceutical procedures adopted in the preparation of Dhatri Bhallataka Vati are Shodhana, Churnanirmanana and preparation of Vati. In the present study, an effort has been made to highlight the significance of these pharmaceutical procedures and to standardize the method of preparation of DhatriBhallatakaVati.

Aim and Objectives :

Pharmaceutical standardization of various steps involved in the preparation of DhatriBhallatakaVati.

Materials and Methods:

Chief reference:

Rasatantrasaravasiddhaprayogasangraha, Prathama Khanda, Gutikaparakarana. The entire preparation of DhatriBhallatakaVati was carried out in the P.G Department of Rasa Shastra and BhaishajyaKalpana, S.V Ayurveda College, TTD, Tirupati, Andhra Pradesh.

The entire Pharmaceutical study was carried out in four stages:

Stage I

- BhallatakaShodhana

Stage II

- Preparation of Amalaki Churna
- Preparation of Haritaki Churna

- Preparation of Vibhitaki Churna
- Preparation of Maricha Churna
- Preparation of Pippali Churna
- Preparation of Shunti Churna
- Preparation of Krishna tila Churna
- Preparation of Guda Churna

Stage III

- Preparation of Homogeneous mixture

Stage IV

- Filling homogeneous mixture in 125mg Capsules
- Preparation of Dhathri Bhallataka Vati Capsules

Dhathri Bhallataka Vati preparation

- **Materials**²: Shuddha Bhallataka -80g

Amalaki churna - 40g

Haritaki churna - 40g

Vibhitaki churna - 40g

Maricha churna - 26g

Pippali churna - 26g

Shunti churna - 26g

Krishna Tilachurna - 80g

Gudachurna - 80g

- **Method/ Principle**: Shodhana, Churna Nirmana, Mardana

- **Apparatus**: Khalwayantra, Steel vessel, Cloth, Spoon, tray and steel cutter.

Procedure:

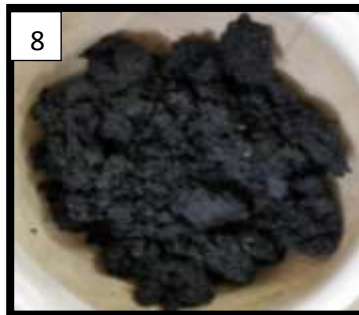
- Shodhana of Bhallataka was carried out by taking the Bhallataka Seeds (Semicarpus anacardium) and seed caps were carefully removed. and placed in a thick cloth like a sack along with required quantity of fine brick powder.

- The sack is then rubbed thoroughly from outside³. later the seeds were washed with warm water dried under sun.
- Seeds obtained from previous practical are taken in double folded cloth and made into pottali.
- The pottali ishung indolayantra containing freshly collected tender coconut water (NarikelaJala) as drava-dravya. The process of swedanais carried out over mild fire for 3 hours⁴.
- Later the seeds were taken out, washed with warm water and dried.
- Purified Bhallataka seeds were taken in a Khalwayantra and pounded to make fine powder.
- Churnanirmana of Amalaki, Haritaki, Vibhitaki, Maricha, Pippali, Shunti, Krishna tila and Gudawas carried out by pounding in Khalwayantra one after the other and filtering through a clean cloth.
- Shuddha Bhallataka Churna and Churna of other drugs are taken in a khalwayantra mixed well to form a homogenous mixture.
- The homogenous mixture was filled into 125mg capsules. Capsules were stored in a air tight glass container.

Observations:

- During Shodhana of Bhallataka oil oozes from seeds into brick powder. Colour of brick powder changes in to dark colour when mixed with seed oil.
- During Dolyantraswedana colour of Narikelajala turned in to black colour when mixed with seed oil.

IMAGES :





Images

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| 1. Bhallataka seeds | 10. AmalakiChurna |
| 2. Bhallataka seed caps removed | 11. Vibhitaki |
| 3. Bhallatakapottali in Narikelajala | 12. VibhitakiChurna |
| 4. DolayantraSwedana | 13. Haritaki |
| 5. NarikelaJala turned into black colour | 14. HaritakiChurna |
| 6. ShoditaBhallataka | 15. Pippali |
| 7. Drying ShoditaBhallataka | 16. PippaliChurna |
| 8. ShoditaBhallatakaChurna | 17. Maricha |
| 9. Amalaki | 18. MarichaChurna |
| | 19. Shunti |

20. ShuntiChurna
21. Tila
22. TilaChurna
23. Guda
24. GudaChurna
25. Mixing of all Ingredients
26. Homogenous mixture
27. DhatriBhallatakaVati Capsules

Precautions:

- Avoid contact with seed oil
- Apply coconut oil all over body
- Trituration should be carried out at a slow and steady pace to prevent spillage of the material.
- Capsules are to be preserved in an absolute sterile and moisture free glass container.

II. RESULTS:

Table 1: Showing the results of various practicals done in the preparation of DhathriBhallathakaVati

S.No	Name of the practical	Initial weight(g)	Final weight(g)	Loss/Gain in weight
1	BhallatakaShodhana	120g	102g	18g
2	BhallatakaShodhana	102g	96g	6g
3	Amalakichurna	55g	48g	7g
4	Haritakichurna	55g	48g	7g
5	Vibhitakichurna	55g	48g	7g
6	Marichachurna	40g	36g	4g
7	Pippalichurna	40g	36g	4g
8	Shuntichurna	40g	36g	4g
9	KrsihnaTilachurna	105g	96g	9g
10	Gudachurna	105g	96g	9g

Table 2: Showing the result of mixing of component drugs of DhathriBhallatakaVati

Initial weight	Final weight	Loss in weight	Loss in percentage
540g	530g	10g	1.85%

Table 3: Showing the results of preparation of DhathriBhallatakaVatiCapsules

Weight of DhatriBhallatakaVati	Number of Capsules (125mg)	Loss in weight	Loss in percentage
530g	4200	5g	0.9%

III. DISCUSSION :

As some of Ayurvedic compounds and medicines contain metals, minerals and toxic herbs, some specialised Ayurvedic Pharmaceutical procedures like Shodhana⁵, Marana, Bhavana etc. are recommended to remove toxic effect and to increase the therapeutic efficacy of Ayurvedic compounds.

Bhallatakashodhana :

IfBhallataka is administered without Shodhana it causes burning sensation, inflammation associated with pain, so purification of Bhallataka is necessary before administration⁷. In this present study BhallatakaShodhana was done according to the method that was mentioned in

Rasa Tarangini, which includes cutting of Bhallataka seed caps and keeping in invert position in a sack containing fine brick powder and sack rubbed thoroughly. By this method oil from seeds comes out and gets absorbed into fine brick powder. And another method includes cutting of Bhallataka seed caps and making into pottali and placed in dolayantra containing Narikelajala for 3 hours. It was observed that the colour of narikelajala changed to black, and some oil globules floating on Nariekalajala after the Dolayantrashodhana.

Churna nirmana⁶ of herbal drugs:

Amalaki, Vibhitaki, Haritaki, Maricha, Pippali, Shunti, Krishna Tila and Gudawere made into fine powder, according to the reference

mentioned in SharangadharaSamhita, MadhyamaKhanda. Some weight loss was observed in churna preparation due to spilling during pounding and some powder adhered to khalwayantra and sieving(filtering cloth) cloth.

Preparation of homogenous mixture of all component drugs:

Bhallatakachurnaobtained after shodhana and the fine powders of herbal drugs were mixed in the ratio as mentioned in the reference to obtain the homogenous mixture of DhatriBhallatakaVati

Preparation of DhatriBhallatakaVatiCapsules :

According to RasatantrasaraVaSiddhaprayogaSangraha, Dose of DhatriBhallatakavati is 1 ratti(125mg). Homogenous mixture of DhatriBhallatakaVati filled in 125mg capsules. DhatriBhallatakavati (capsules of 125mg) is prepared.

IV. CONCLUSION

Pharmaceutical study of Ayurvediccompounds is very important for the establishment of their efficacy and increased biological activity. The pharmaceutical procedures involved in this study are Shodhana, ChurnaNirmana, Mardana and preparation of DhatriBhallatakavati.The procedure ofShodhana decreases Teekshnatva, toxic effect of Bhallataka and increases its efficacy.ChurnaNirmana and Vastragalitam procedure helps in size reduction and makes the drug more bioavailable.The process of Mardana (grinding) reduces the particle size, which will increase the surface area of the drug for better absorption.

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