

Varti Kalpana in Ayurvedic Pharmaceuticals: A Classical Review

Dr. Sneha Navandar¹, Prof. Anjana Dwivedi², Dr, Mandeep Jaiswal³

¹M.D Scholar, Dept of RS&BK, State Ayurvedic College & Hospital Lucknow, U.P, India.

²H.O.D Dept of RS&BK, State Ayurvedic College & Hospital Lucknow, U.P, India.

³Associate Prof, Dept of RS&BK, State Ayurvedic College & Hospital Lucknow, U.P, India.

Abstract

Ayurveda, the ancient science of life, possesses a highly developed pharmaceutical branch known as Bhaishajya Kalpana, which deals with the preparation, preservation, and administration of medicinal formulations. Among the various dosage forms described in Ayurvedic classics, Varti Kalpana occupies a unique place because of its specialized local therapeutic applications. Varti refers to wick-shaped medicated preparations prepared by triturating powdered drugs with suitable liquid media and rolling them into elongated forms for administration through body orifices such as the eye, rectum, vagina, nose, or wound tracts. Classical texts such as the Charaka Samhita, Sushruta Samhita, Ashtanga Hridaya, Sharangadhara Samhita, and Bhaishajya Ratnavali have described numerous Varti formulations along with their indications and methods of preparation.

Varti Kalpana demonstrates the advanced pharmaceutical understanding of ancient Ayurvedic scholars regarding local drug delivery systems, targeted therapeutic action, and prolonged retention of medicine at the site of pathology. This review aims to elaborate the concept, historical background, classification, pharmaceutical methods, therapeutic significance, and contemporary relevance of Varti Kalpana in detail.

Keywords: Varti Kalpana, Bhaishajya Kalpana, Ayurveda, Classical Review, Ayurvedic Pharmaceuticals

Introduction

Ayurveda is one of the oldest systems of medicine that emphasizes prevention and cure of diseases through holistic approaches. Bhaishajya Kalpana is an important branch of Ayurveda dealing with pharmaceutical preparations and dosage forms. Ancient Ayurvedic scholars designed different medicinal forms according to the nature of disease, route of administration, patient convenience, and therapeutic requirement.

The major objective behind pharmaceutical processing in Ayurveda is:

- To increase therapeutic efficacy
- To improve palatability
- To reduce toxicity
- To enhance shelf life
- To facilitate targeted drug delivery

Among the many dosage forms described in Ayurveda, Varti Kalpana is considered one of the specialized formulations used mainly for local therapeutic purposes. The preparation is generally administered through natural body openings or directly into diseased tissues. It is mainly indicated in disorders related to Netra (Eye), Guda (Rectum), Yoni (Vagina) Nasa (Nose), Vrana (Wounds and sinus tracts)

The concept of Varti Kalpana highlights the importance of local therapy in Ayurvedic management. The formulation resembles modern pharmaceutical dosage forms such as suppositories, pessaries, ophthalmic inserts, and medicated tampons.

- **Varti -**

Medicines used externally for the eye come under category of Varti, Netrabindu and Anjana¹.

- **Nirukti - वर्तयति इति वर्ति |²**

- **Definition - वर्तिरिव स्वरूपत्वात् वर्ती नाम्ना प्रकीर्तिता |³**

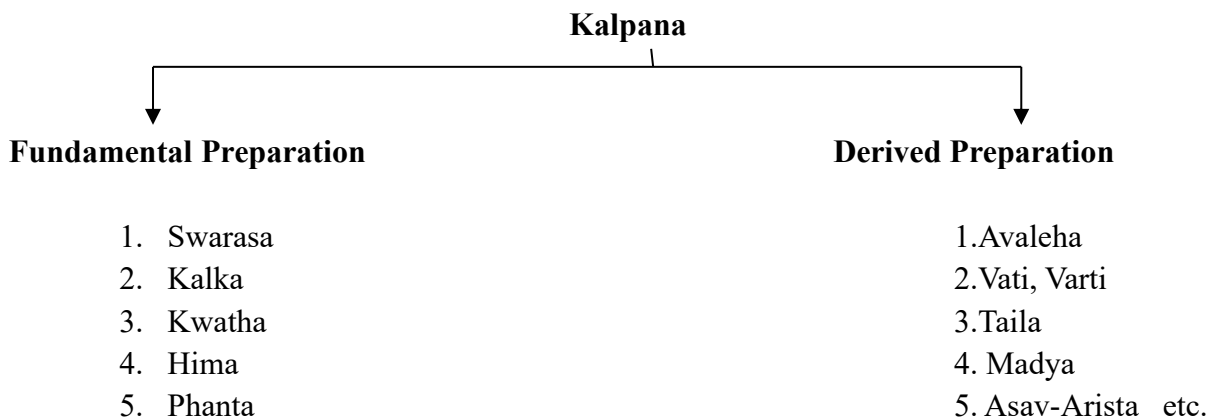
Powdered drugs are triturated and made into the shape of a wick of lamp which is thicker at middle and thinner at its ends.

- **Kalpana -**

Kalpana means Yojana or Sansakara. Panchvidha Kashaya Kalpana are the fundamental preparation. All other formulations are derived from fundamental preparations⁴. Ayurvedic preparation are divided into two part-

1. **Fundamental preparation.**

2. **Derived preparation.**



- **Synonyms - मोदको वटिका पिण्डी गुडो वर्तिस्तथोच्यते |⁵**

Synonyms of Vati are Modaka, Vatika, Pindi, Guda and Varti.

- **Method of Preparation -** Method of preparation of Varti is similar with Vati Kalpana. Generally, Varti is prepared in two methods.

1. Sagni. (Paka method)
2. Niragni. (Bhavana method)

1. **Sagni (Paka Method) –**

In this method, Guda (jaggery)/ Sarkara (sugar) is taken and boiled in water using a vessel over mild flame i.e. Mandagni and the heating process is continued up to attaining 2-3 thread consistency. Once this consistency is achieved heat is turned off and fine powders of drugs are added little by little into it and stirred well to obtain a homogenous mixture. After attaining pill rolling consistency, Varti is prepared manually in appropriate size and shapes. Thus, the prepared Vartis are dried under shade at room temperature and stored in airtight glass containers.

Eg. - Pippalyadi Varti mentioned by Charak in Trimarmiya Adhyaya.

2. Niragni (Bhavana Method) –

In this method, raw drugs are powdered separately and sieved individually through sieve number 120 to obtain fine particle size. The drugs are mixed together homogenously. After that, the required Drava Dravya (liquid media) is added. Madhu, Ghrita, Gau Dughdha, Aja Dughdha, Gau Mutra etc. are used as liquid media in accordance to the disease condition. Bhavana (trituration) is carried out until proper binding consistency is achieved. Once the mass reaches the desired consistency, Varti is prepared manually in the desired shape & size. Finally, the prepared Vartis are dried under shade and stored in air tight glass containers.

Eg. - Chandrodaya Varti mentioned in Netra Roga, Bhavana is indicated with Aja Dughdha⁶.

• Types of Varti⁷ –

Varti preparations are intended to be administered in body orifices other than the oral cavity. On the base of the site of administration, they are classified as follows -

1. Netra Varti - Administer in eyes.
2. Nasa Varti - Administer in nose.
3. Dhuma Varti - Medicated smoke.
4. Guda Varti / Phala Varti - Administer in rectum.
5. Yoni Varti - Administer in vagina.
6. Shishna Varti - Administer in urethra.
7. Vrana Varti - Administer in wounds.

1. Netra Varti –

Netra Varti is prepared in elongated form i.e. Yava Akriti. They are grinded with appropriate liquid media and applied as Netra Anjana (collyrium). After the body has been purified, Acharya Vagbhata mentions three types of Anjana: Pinda, Rasakriya, and Churna that are utilized to treat severe vitiation of Netra Dosh⁸.

Not only is Netra Varti utilized in Netra Roga, but Acharya Vagbhata also discussed administration of Vruhchikalyadi Varti in management of Apasmara.

• Time of application of Netra Varti -

• According to the season (Sha.Sam.)⁹ -

- Hemanta, Shishira – Afternoon
- Grishma – Morning
- Sharad – Evening
- Vasanta – Any time
- Varsha – No cloudy weather, not too cold/not too hot.

• According to a type of Netra Anjana¹⁰ -

- Lekhana Anjana – Kaphaja vyadhi – Morning
- Snehana Anjana – Vatika vyadhi – Evening
- Prasadana Anjana – Pittaja vyadhi – Night

2. Nasa Varti –

Since the nose is the main entrance to the brain, Varti preparations are placed in the nasal cavity. Apamarg beeja, Vidanga, Sirisha, Tikshna, Krimighna Dravya, and other medicinal substances are finely powdered, applied to cloth, and Varti is made. It aids in the treatment of Pinasa, Pratishaya, and other Nasa Rogas.

Eg. - Nikumbhadi Nasa Varti used in Nasa Arsha¹¹

3. Dhuma Varti –

Dhuma Varti is mostly recommended for respiratory tract infections (Pranavaha Sroto Vikar) and Vata Kaphaja illnesses of Uttamanga (above shoulder joint). Because of its Ushna-Tikshna Guna, it is contraindicated in Pitta and Rakta Vikar. After Nasya Karma and Kavala Graha, it is mentioned in Dinacharya to get rid of the Dosha. It has a significant impact on long-term head and neck infections, such as sinusitis and chronic suppurative otitis media, etc

According to Charak, the therapeutic substances are ground into a fine powder, mixed into a paste, and then applied on a reed. Dhuma Varti are made in a barley-shaped, cigar-like structure (Yava Sannibha). Dhuma Varti is 8 Angula long and has a thumb thickness of 12 in the middle. Once the reed has dried up, it should be removed. Such Varti should be regularly used with an oil-dipped Dhuma Netra (pipe).

Acharya Vagbhata had some differences regarding the preparation of Dhuma Varti. A stalk of Ishika grass having 12 Angula length is dipped in water for 1 day (24 hours). Fine paste of medicinal drugs is applied over the stalk 5 times and made it into the form of a Varti with thickness of thumb and shape of Yava dhanya (Barley grain). After drying remove the stalk and the Varti dipped in Sneha Dravya and ignited by placing at the tip of Dhuma Netra (smoking pipe).

4. Guda Varti /Phala Varti -

Guda Varti is intended to administer in rectum to correct Apanavayu Vaigunya Rogas like Udavarta, Arsha, Atisara, Gudavarchas and other gastro-intestinal disorders. It is also called as Phala Varti. Guda Varti produce Vata Anulomana and evacuate Sanchita dosha at rectum and cure the disease. Charak mentioned Guda Varti in Basti Vyapad. It is prepared in the shape of barley grain (long oval shape) and thick as thumb size. But Kanakamooladi Varti has Valla Pramana and Agaradhumadi Varti has Kanishta Anguli Pramana¹³. Varti should be administered in the rectum after anointing it with ghee.

5. Yoni Varti –

Yoni Varti can be used effectively in Yoni Roga and Garbhashaya Roga. It helps to clear the vaginal canal by removing the vitiated Sanchita Dosha and also provides the opportunity to replenish the harmonized vaginal health. Yoni Varti is designed according to the vaginal size. Acharya Charak has mentioned the size of Samshodhana Yoni Varti under Slaishmik Yoni Vyapad Chikitsa as Pradeshini Anguli Pramana. Bhaishajya Ratnavali, Chakradatta, Yoga Ratnakara also mentioned the size of Pippalyadi Varti in Slaishmik Yoni Vyapad Chikitsa as Pradeshini Anguli Pramana.

6. Shishna Varti –

Shishna Varti are administered in the penile introitus of males in Mutrakricha, Ashmari, Mutraghata, Puyameha conditions. 1-12 Angula long Shishna Varti helps to void urine from the above said conditions. Eg. - Shishna Varti prepared with Varuna, Pashanabheda, Gokshura, Punarnavamula, Panchamula, Yavakshara, Navasara.

7. Vrana Varti

Vrana Varti are prescribed in ulcers which advocating Vrana Shodhana and Vrana Ropana. Sushruta has included Varti Prayoga under Shashti Upakrama of Vrana Shotha Chikitsa. Medicinal drugs are impregnated over threads otherwise made into wicklike structure and administer in Vrana. Different types of Vrana Vartis are indicated in Nadi Vrana, Bhagandar treatment.

• **Ingredients used in Varti Nirman -**

In the preparation of Varti three ingredients must be necessary: -

1. Drugs in the form of fine powder.
 2. Binding substance/ Sweet substance.
 3. Drugs for Bhavana.
1. **Drugs in the form of fine powder:** Churna is a dry fine particle of drug. Fine powder of drugs is prepared by grinding in pulverizer or pounding in emamdusta after getting through sieving by sieve number 120¹⁴.
 2. **Binding Substance/ Sweet Substance:** In the formation of Varti, Guda(jaggary), Sharkara, are used, and they are called as binding substance.
 3. **Drugs for Bhavana:** The drugs are mixed together and Bhavana (trituration) done with appropriate Drava Dravya (liquid media). Honey, ghee, cow's milk, goat's milk, cow's urine are used as liquid media on accordance to the disease condition. This liquid substance should be mixed properly with Churna, and then Varti should be made after proper Mardana.

Precaution of Varti Nirmana -

- **Before Preparation of Varti-**
- In the Preparation of Varti, fine churna must be used. (Mesh size No.-120)
- Drug used in Varti Nirmana should be free from insects and worms etc.
- Drava Dravya (Liquid media) should be used according to their description, if not described then Jala (water) is used.
- The chief ingredients should be mixed properly with the prescribed Drava Dravya (Milk, honey, etc.)
- If metal and minerals are used, then they should be used in Bhasma forms.
- If Parad and Gandhaka are used, then they should be used in Kajjali form.
- Varti should not be so hard /soft.
- **During Preparation of Varti -**
- Fine powder (Churna) of all ingredients must be properly mixed before preparation of Varti.
- Guda(jaggary) and Sarkara(sugar) should not be used in Kharpaka. (Sagni i.e. Paka Method)
- Varti should be equal in shape, size and appearance also.
- In the preparation of Varti, Mardana should be properly done. (Niragni i.e. Bhavana Method)
- **After Preparation of Varti-**
- Prepared Varti should be dried in shade.
- Prepared Varti should be kept in air tight glass container.
- If Lavana(salt), Sharkara(sugar), Kshar etc. are used in the Varti, it should be free from moisture.
- **Size & Shape of Varti –**

Vartis are different in its size and shape on accordance to the orifice that which occupies. Guda Varti, Yoni

Varti are designed in compatible to its anatomical structure of Rectum and Vagina respectively. Guda Varti prepared in Angushta Pramanam (size of thumb). According to Acharya Sushruta Yoni resembles the shape of hollow conch shell (Shankhanabhi) and Bhaga (Vulva) is 12 Angula long¹⁵. Yoni Varti had Pradeshini Anguli (Index finger) Pramana.

- **Dose of Varti -**

In case of Netra Varti, Acharya Sushruta had pointed out that dose of Netra Anjana depends on its types.

- Lekhana Anjana - Harenu Matra (around 40mg)
- Prasadana Anjana - One and half of Harenu (around 60mg) and
- Ropana Anjana - 2 Harenu (around 80mg).

Acharya Vagbhata opines that Harenu Matra for Pindi type of Anjana, Vella Matra for Rasakriya. But in practical manner the tolerance level of the patient is also considered¹⁶.

- **Shelf life of Varti -**

According to A.F.I. it is two years, if it is preserved free from moisture.

Conclusion

Varti Kalpana is an important and unique dosage form described in classical Ayurvedic literature, mainly utilized for local therapeutic action in diseases related to the eye, nose, ear, oral cavity, genital tract, and anorectal region. The classical texts explain various methods of preparation, ingredients, dimensions, indications, and administration techniques, reflecting the advanced pharmaceutical knowledge of ancient Ayurvedic scholars.

The formulation of Varti emphasizes precision in drug processing, proper trituration (Bhavana), and suitable binding to achieve the desired consistency and therapeutic efficacy. Different varieties of Varti mentioned in classics demonstrate its wide applicability in both Shodhana and Shamana Chikitsa. The local administration ensures prolonged contact of medicine with the affected site, enhances drug absorption, and minimizes systemic adverse effects.

Classical Ayurvedic texts also highlight the importance of selecting appropriate drugs according to Dosha, Roga, and Sthana, making Varti Kalpana a highly customized and patient-oriented dosage form. In present times, the scientific evaluation and standardization of Varti preparations can further validate their efficacy, safety, stability, and pharmaceutical significance.

Thus, Varti Kalpana represents a valuable contribution of Ayurvedic pharmaceuticals, combining therapeutic effectiveness, convenience of administration, and targeted drug delivery. Its detailed description in classical literature reflects the richness and sophistication of Ayurvedic pharmaceutical science, and it continues to hold significant potential in contemporary Ayurvedic practice and research.

Discussion

Varti Kalpana is one of the significant pharmaceutical preparations explained in classical Ayurvedic texts under specialized local therapeutic formulations. The detailed references available in texts such as Charaka Samhita, Sushruta Samhita, Ashtanga Hridaya, and Sharangadhara Samhita indicate the extensive practical importance of this dosage form in Ayurvedic therapeutics. The concept of Varti demonstrates the advanced understanding of localized drug delivery systems in ancient Ayurveda.

The word "Varti" generally refers to wick-shaped or cylindrical medicaments prepared by triturating fine powders of drugs with suitable liquid media and rolling them into a specific shape. Depending upon the site of application and therapeutic requirement, Varti is used in ophthalmic, rectal, vaginal, nasal, and

wound management procedures. The classical texts have described various types of Varti such as Netra Varti, Guda Varti, and Yoni Varti, etc each possessing distinct indications and methods of administration. The pharmaceutical principles involved in Varti preparation reflect the importance of proper drug selection, fine particle size, adequate levigation (Bhavana), and maintenance of suitable consistency. The use of herbal juices, decoctions, honey, ghee, or other binding agents enhances the therapeutic potency and stability of the formulation. The shape and size of Varti mentioned in classical literature suggest the necessity of standardized preparation for effective administration and patient comfort.

One of the major advantages of Varti Kalpana is its targeted local action. Since the medicine remains in direct contact with the affected area for a prolonged duration, it ensures better absorption and sustained therapeutic effect. This localized mode of administration minimizes systemic exposure and helps in reducing unwanted effects. The incorporation of drugs having Lekhana, Shodhana, Ropana, Krimighna, Vedanasthapana, and Shothahara properties further broadens the therapeutic utility of Varti preparations. The classical texts also emphasize the role of Dosha, Dushya, Rogamarga, and Sthana while selecting ingredients for Varti formulations. This reflects the individualized approach of Ayurveda in designing treatment modalities according to the pathology and patient condition. Furthermore, the different methods of drying and storage described in classics indicate awareness regarding preservation and shelf-life of formulations.

In the modern era, Varti Kalpana can be correlated with suppositories, pessaries, ophthalmic sticks, and medicated wicks used in contemporary pharmaceuticals. However, the Ayurvedic concept provides a broader therapeutic approach by integrating herbal, mineral, and herbo-mineral drugs with personalized treatment principles. Scientific validation through pharmaceutico-analytical studies, standardization, microbial analysis, and clinical evaluation can further establish the efficacy and safety of these classical formulations.

Therefore, the classical concept of Varti Kalpana highlights the sophistication of Ayurvedic pharmaceuticals and its relevance even in present-day healthcare. Its therapeutic efficiency, localized action, and versatility make it an important dosage form deserving further research and standardization.

References

1. Ayurvedic Pharmacopeia of India, Part-1, Vol. I, by Central Council for Research in Ayurveda and Siddha, New Delhi, Page 551
2. Joshi Sunil Kumar. Shashti Upakrama. Chapter 28.P226
3. Su. Sam. Chi commentary Nibandha Sangraha 1/15
4. Charak Samhita, Edited & Translated by Prof. P.V. Sharma, Choukhamba Orientalia, Varanasi, First Edition, 1983. (Cha.Sam.Su 4/6)
5. Sharangadhar Samhita, vyakhyakarti Dr. Srimati Shailaja Shrivastav, Choukhamba Orientalia, Varanasi, Reprint 2013 (Sha.Sam Ma.Kh 7/1)
6. Sharangadhar Samhita, vyakhyakarti Dr. Srimati Shailaja Shrivastav, Choukhamba Orientalia, Varanasi, Reprint 2013 (Sha.Sam. Ma. Kh 13/75-77)
7. Dr, Shobha G. Hiremath. A Text Book of Bhaishajya Kalpana. Page.No.186-197.
8. Ashtanga Hridaya, Choukhamba Krisnadas Academy, Varanasi, Reprint, 1996. (Ash. Hri. Su 23/13)
9. Sharangadhar Samhita, vyakhyakarti Dr. Srimati Shailaja Shrivastav, Choukhamba Orientalia, Varanasi, Reprint 2013 (Sha. Sam. Utt. Kh 13/62 – 63)
10. Ashtanga Hridaya, Choukhamba Krisnadas Academy, Varanasi, Reprint, 1996 (Ash. Hri. Su. 23/9)

11. Ashtanga Hridaya, Choukhamba Krisnadas Academy, Varanasi, Reprint, 1996 (Ash. Hri. Utt 20/24)
12. Charak Samhita, Edited & Translated by Prof. P.V. Sharma, Choukhamba Orientalia, Varanasi, First Edition, 1983. (Cha. Sam. Su 5/37)
13. Sharangadhar Samhita, vyakhyakarti Dr. Srimati Shailaja Shrivastav, Choukhamba Orientalia, Varanasi, Reprint 2013 (Sha. Sam. Utt. Kh 13)
14. Sharangadhar Samhita, vyakhyakarti Dr. Srimati Shailaja Shrivastav, Choukhamba Orientalia, Varanasi, Reprint 2013 (Sha. Sam. Ukh.6/1)
15. Su. Sam. commentary Nibandha Sangraha (Su. Sam. Utt 42/99 -100)
16. Ashtanga Hridaya, Choukhamba Krisnadas Academy, Varanasi, Reprint, 1996. (Ash. Hri. Su 23/14)