

HARIDRADI DHOOMA VARTHI; REVIEW AND METHOD OF PREPARATION

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Abstract: The importance of Ayurveda in global scenario is because of its holistic approach towards positive life style. It consists of internal as well as external medicine. 'Dhoomapana' has significant role in 'jatru urdhwa' rogas and in respiratory conditions. In respiratory conditions, Acharyas have described various types of internal medications in the form of kashaya, choorna etc along with various nasya and dhoomapana yogas. To cause respiratory disease, bacteria first need to colonize the naso pharyngeal niche. Colonization of the niche is a dynamic process. Altering the circumstances for the growth of pathogens can be accured by the administration of dhoomapana through nasal route. Meanwhile inhalation of medicines is found to be target specific and ensure cure of the diseases with in limited time period. *Haridradi dhooma varti* mentioned in Ayurveda contains many volatile components and it is found to be very effective in clinical practice, for patients with respiratory distress and in various infectious conditions. The aim of the study was preparation of dhoomavarthi according to different classics and comparison of varthis after preparation and burning of varthis.

Key words- Dhoomapana, jatruurdhwa, haridradi dhoomavarthi, kalpanas, kashaya, choorna.

INTRODUCTION

There are different types of kalpanas mentioned in Ayurvedic classics. They are broadly classified into primary and secondary kalpanas. Ayurvedic dosage forms are very exclusive in its pharmaceutics and therapeutics. In Ayurveda, human body is compared with a tree which stands with roots above.¹Dhoomapana is one of the important procedures enumerated while describing chikitsa of uthamanga especially in diseases of the nose and respiratory pathway. In classics dhoomapana is primarily mentioned as part of dinacarya-daily regimen for healthy persons for the maintenance of health. It is elaborated in dinacarya adhyaya following nasya and kabala. A healthy individual is advised prayogika dhoomapana following nasya and kabala graha. It is described in classics as by the use of dhoomapana, disease of organs located above the shoulders due to vata and kapha will not develop.²Dhoomapana or inhalation of medicated smokes is mentioned in the context of treatment of certain diseases of kapha and vata pertaining to head and neck. Even if dhooma is derived from seeta veerya drugs, with the contact of fire, it becomes hot in potency and is antagonistic to pitta and kapha.

Scope of the study: . The endeavour to study the well documented findings will provide substantial evidence on dhoomapanayoga and how to prepare dhoomapana varthi in clinical practice according to different classics

Review on preparation of dhoomavarti

According to Charaka, A hollow reed (Ishika) of twelve angula long is covered with one karsha of fine paste of drugs of fumigation to a length of ten angula leaving bare a space of two angula at any one end having thickness of big finger in the shape of barley. It should be dried well in shade and the reed removed carefully. The roll of the paste is smeared with a little ghee and fixed to the nozzle without breaking it. It is lit at one end and smoke drawn into the mouth. The smoke is later left out through the mouth only, or drawn through the nose and left out through the mouth³.

Acharya Susrutha explained about preparation of Dhooma varthi where the fine paste of drug is pasted over 12 angula length and 1 finger thick. Sara (weed stick) is wrapped with a kshouma vastra of 8 angula and paste applied again over it⁴.

According to Vagbhata in A.S explains a reed of kasa, 12 angula in length, soaked in water for day and night and then it should be wrapped in 5 layers with a ribbon of cloth, smeared with paste of drugs, its thickness being that of the middle portion of thumb. It should be dried in shade, removed its reed, smeared with ghee and varthi can be used after applying sneha⁵.

Acharya Sarangadhara in deepika commentary explains that ishika of 12 A is taken. Fine paste of drugs applied to the piece of cloth, sara kanda of 1 A thickness taken drugs applied to 8 A thickness; rolled and made into a varthi remaining 4A for holding the varthi. After drying ishika is taken out. ⁶

Haridradi dhooma varthi

Haridradi dhooma is one of the dhooma preparations mentioned in Caraka samhita swasa hidhma cikitsa adhyaya⁷. It is a herbomineral preparation commonly used in clinical practice and it is observed that this yoga gives sudden relief of symptoms for persons with bronchitis and in persons with many infectious conditions. This yoga has drugs like haridra, manasila, etc having teeksna, usna, ruksha and lekhanaya gunas. Dhooma pana yogas in general are found to be having quick action in smaller dose itself. In addition to that inhalation by dhooma varthi ensure the uniformity in inhaling fumes.

The study formulation *Haridradi dhooma yoga* is one of the *dhooma varthi* preparations used in *dhoomapana* specially mentioned in *Charaka Samhitha* for *swasa chikitsa* in *Hikka swasa chikitsa adhyaya*. It is a herbo mineral preparation containing drugs (table 1.a)

Table 1 a. Ingredients of Haridradi dhooma varthi

1.Haridra rhizome	Curcuma longa
2.Haridra leaf	
3.Eranda moola	Ricinus communis
4.Laksha	Laccifer Lacca
5.Manasila	Arsenic disulphide
6.Devadaru	Cedrus deodra
7.Haritala	Arsenic trisulphide
8.Jadamamsi	Nardostachys jatamansi

Similar yoga is found in ashtanga hrdaya Swasa chikitsa adhyaya ,haridra patra and other drug excluding haridra is mentioned⁸.

MATERIALS AND METHOD

Preparation of dhooma varthi

It consists of two parts

- Collection of ingredients and identification (Pharmacognosy)
- Methods of preparation of Haridradi dhooma varthi

Pharmacognosy

Identification was done by powder microscopy, the peculiar cell composition of each ingredients were assessed separately. The powder microscopy of herbal drugs was done by placing the finely powdered drug into a glass slide, a drop of glycerin was added over it and covered carefully by a cover slip and viewed through a microscope.

It was found that most of the ingredients has oil globules in it indicating the presence of volatile components in each ingredients. Photo micrography of each sample was taken. Jatamamsi initially collected has not shown the characteristic identifying feature. Hence new drug from genuine source was bought, tested again and confirmed. Haratala and manasila bought from the local market were not thought to be genuine. Hence samples were purchased from Calcutta geologist synd pvt.limited. XRD analysis of mineral ingredients was done. The phase analysis of the samples confirmed their authenticity by comparing the appropriate JCPDS numbers of the minerals. Haridra collected from genuine sources. Haridra patra collected in post-harvest period of Curcuma longa plant.

Pharmaceutics

It consists of collection of raw materials, processing of raw materials and preparation of varthi.

Processing of rawmaterials

1. Cleaning, washing and drying of herbal drugs
2. Sodhana of Haritala and Manasila
3. Powdering of raw materials
4. Sieving of powdered drugs

All herbal drugs were cleaned washed and dried in sunlight, except leaves of haridra which was dried in shade. Sodhana of haratala and manasila ; As the varthi contains harithala and manasila sodhana of harithala and manasila was done.

Sodhana of Haritala⁹

The sodhana of haratala was done by swedana in dola yantra as per the reference in Rasa ratna samuchaya⁷. TDravadravya used was kusmanda swarasa. The ideal specimen of haratala with the classical lakshana was procured from Calcutta Geologist Syndicate pvt. Limited.

50 gm of haratala was taken. It was then broken into small pieces and a pottali was made. Kusmanda of 3.5 kg was bought. Its outer skin and seeds were removed, cut it into small pieces and swarasa was taken. The pottali was then made to hang in dolayantra in such a way that it was completely immersed in the kusmanda swarasa without touching the bottom. The process was done for three hours continuously. Fresh swarasa was added according to the level of swarasa. The total amount of swarasa which was needed was measured. The haratala thus obtained was washed using hot water. It was dried well, powdered fine and then weighed. Haratala was then preserved in a glass bottle (Fig.4a)

Sodhana of manasila¹⁰

Sodhana of manasila was done by bhavana and mardana according to the reference in Rasa Tarangini.⁶ 50 gm of manasila satisfying the grahya lakshana was finely powdered and was taken in a porcelain khalwa yantra. Good quality ardraka was bought from the local market. The outer covering of the ardraka was peeled off and fresh swarasa was extracted. Amount of swarasa required to completely immerse the total manasila was poured into the khalwa containing finely powdered manasila. The grinding was done till it became dry. After drying manasila was weighed and the same process was repeated for seven time. Fresh swarasa was taken each time and used. The final product was collected , finely powdered and preserved in a glass bottle.(Fig 4.b)

Laksha sodhana¹¹

Laksha chopped into small pieces, sticks and foreign matters are removed⁷.

Fig. 4 a

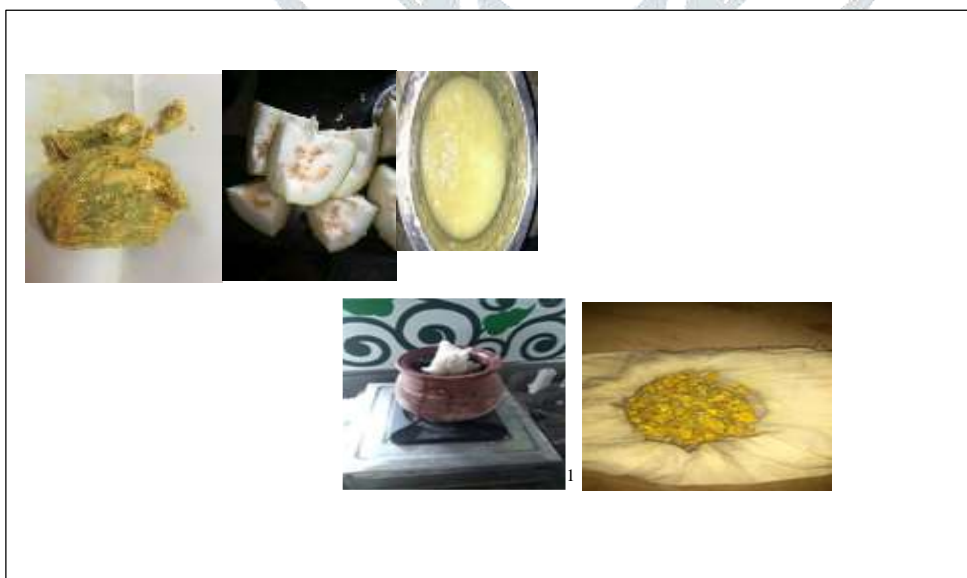




Fig.4b

Powdering and sieving of rawmaterials

The powdered drugs were individually sieved through sieve number 85 and were stored in airtight container.

Preparation of haridradi dhooma varthi

In Haridradi dhooma yoga, particular method of preparation of varthi was not mentioned. Hence varthis were prepared in two methods according to two different classics

In clinical practice it is found to be used with cloth, and other references point out the use of varthi without the aid of cloth. For the preparation of varthi cotton cloth was taken washed in hot water for attaining more compact structure of threads and for sterilisation. Ishika or darbha of 24 cm was taken, immersed in water for 24 hours, dravya kalka was directly applied into the ishika in the form of barley grain with mid circumference having that of bigfinger. Varthis were prepared with reference to Caraka Samhitha, Sarangadharasamhitha and Ashtanga sangrahaa. In Sarangadhara Samhitha, the quantity of dravya kalka was mentioned as 1 karsha or 12 gm. Three samples of each set were prepared.

1.Dhoomavarthi according to Caraka Samhitha(Sample A)

Darbha of 24 cm length is taken. Dhooma dravya kalka is applied layer by layer to the length of 20 cm. After complete drying of one layer, other layer is applied in the shape of yava, of the thickness of bigfinger in the middle, and kept in shade for drying. After complete drying the ishika was taken out. A varthi with two holes at ends were obtained. Weight was taken. 8 gm weighed 3 varthees were made repeating the whole method¹² (Fig 5.a)

2.Preparation of dhoomavarthi according to others (Sample B)

Ishika of 24 cm length is taken and kept in water for overnight. Cotton cloth of 16×16 cm was taken washed well in hotwater and dried was taken. Kalka of 12 gm weight was applied on the piece of cloth after placing the cloth on flat surface. The darbha was placed on one end of the cloth and cloth was rolled into 5 layers, kept in shade and dried well. Varthi of 12 gm was obtained. Three such varthees were made.¹³ (Fig 5.b)

RESULT and DISCUSSION

Haridradi dhoomavarthi is a potent dhoomapanayoga which was made in two different methods. The aim of the study was preparation of the varthis mentioned in two different classics and their comparison. Three sets of samples of each group were prepared.

In each varthi 12 gm of oushadha kalka was applied. Varthi of 8gm was obtained in Sample A and varthi of 10 gm was obtained in sample B. Observation and comparison of result are shown in table 1.b

Table 1.b comparison of two samples

Observation	Sample A	Sample B
Materials used for preparation	Reed(darbha), haridra and other drugs	Cloth, darbha, haridra and other drugs
Consistency	Solid but easily breakable	Solid and firm
Shape	Shape of barley	Long cylindrical
Measurements nozzle	Length-15, midcircumference- 2cm, tip - .05 cm	Length - 15 cm Midcircumference- 2cm, tip - 2cm
Duration (shelflife)	1 year	1year
Fume after ignition	feeble	More fumes
Smell of fume	Not penetrating ,mild	Pungent smell

Significant difference in two varthis was one is prepared with the aid of cloth Other without the aid of cloth (Sample B and Sample A) respectively.

While considering preparation of varthis, the powdered drugs were individually sieved through sieve number 85. For ensuring uniformity it was made into kalka and evenly applied. The cloth for varthi was washed in hot water not only for sterilization but also for attaining compactness to prevent loss while applying medicines. Both varthis were shade dried in order to preserve volatile components. Preparation of sample A was more difficult because of the absence of cloth and it was easily breakable.

After only the complete drying of one layer, subsequent layers of drugs were applied resulting in 5 layers attaining the thickness of middle of big finger in sample A. In sample B all drugs of 12 gm applied uniformly in single piece of cloth and folded in five layers.

After complete drying of each layer reed was removed. In both samples drug adhered so firmly and no breakage was observed in each set containing three samples.

After ignition, sample A produced less fumes and which was less penetrating while Sample B produced more fumes and which was more penetrating. Sustained burning was ensured in sample B while sample A was easily lit off. Sample A produced less ash while sample B produced more ash. As cloth is made of cellulose (CHO) after burning release of C and water vapour occurs, hence more ash was produced. In spite sample A was easily converted into ash, as drugs were in direct contact with heat and so burned easily. When applying drugs on cotton cloth it may be acted as a drug delivery system preventing the sudden burning of drugs into ash. Cloth acts as a covering material for drugs providing uniform distribution of heat and helps in controlled burning to release volatile ingredients at particular temperature. Productive smoke produced by burning of varthi may help in carrying volatile components to the target site. Effect of cloth on dhoomapana are yet to be studied.

CONCLUSION

Both samples were observed carefully and it was concluded that sample B could be more practically useful in clinical practice without the aid of dhooma yantra. When considering sample A, it may be more useful in practice only with the help of dhoomayanthi. The peculiarity of sample A is, it contains only the ingredients as such. As sarangadhara samhitha evolved in later period of time than that of Caraka Samhitha, the use of cloth has been described considering the practical aspect of administration and shelflife.



Fig.5a



Fig.5b

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