

**STANDARDIZATION OF NASYA DOSE BY BINDU PRAMANA WITH
KARPASASTYADI TAILA****[Sreeja. V. S¹](#), [Vikram Kumar²](#)**

¹Assistant Professor, Department of Panchakarma, Government Ayurveda college, Thiruvananthapuram, Kerala, India

²Associate Professor, Department of Panchakarma, Alvas Ayurveda Medical College, Karnataka, India

Corresponding Author: drsreejathottathil2@gmail.com

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**ABSTRACT**

Panchakarma therapy has a very important role in maintaining health of a person and eradication of diseases. The success with Panchakarma therapies can be achieved not only through correct assessment of the patient and the medicines used but also the dose of the medicine. Dose for this therapy is very specific and is explained in the classics on the basis of Bindu Pramana. Dose is a very important factor in any of the Panchakarma procedures to get optimum result of the therapy. Change in dose can change the result and further, it can lead to side effects or no effects. However, standardization of this dose had not been made yet. This paper deals with classical concept of Bindu Pramana, preparation, and standardization of Karpasastyadi Taila in Bindu Pramana Matra. The objective is to standardize the process of measurement of Bindu Pramana Matra of Karpasastyadi Taila. Healthy 60 individuals consisting of staffs and students of Alvas Ayurveda Medical College of either gender aged between 20 years to 60 years were selected and purposively assigned into study group. Results were observed and tabulation of data with a statistical commentary based on percentages of different observations was made. Study shows variation in quantity of Madhyama Bindu Pramana Matra and differs from patient to patient. Bindu Pramana varies from subject to subject. Analysis of the results showed that Bindu is not equivalent to drop.

Keywords: Panchakarma; Nasya Karma; Karpasastyadi Taila; Bindu Pramana

INTRODUCTION

W.H.O defines drug as “A substance or product that is used or intended to be used to modify or explore physiological system or pathological status for the benefit of the recipient”. The selection of a proper drug in the management of disease is very important and so of its dosage. In Ayurveda, the word Nasya has been taken specifically to mention the route of administration of the drugs. According to Acharya Sushruta¹, administration of medicine or medicated oils through the nose is known as Nasya. Marsha and Pratimarsha both consist of instillation of oils through the nostrils. The method shared by both are common, but the variation occurs in the context of dose. In Pratimarsha Nasya 2 Bindus are administered while in Marsha Nasya the dose is of 6 to 10 Bindus. Ayurveda is having its own standards such as, Prasruta Pramana in case of Basti. Anguli Pramana for measurements of body parts, Anjali Pramana for measuring the quantity of body fluids etc. Similar way, Bindu is the unit of measurement defined for the Drava Dravya to be used in Nasya. The term Bindu was first coined by Susruta in the context of dose of Sneha Nasya². Except Charaka

all other Acharyas used the word Bindu as the unit of measurement for any medicine in liquid form used for Nasya. Bindu is the unit of measurement and defined as the quantity of Drava (Sneha, Swarasa, Kashaya etc) that dribbles down when the first two parts of index finger are dipped into it and taken out³. Comment on this by Hemadri proves beyond doubt that not just the first drop is one Bindu, but it is the total quantity dribbling down from the index finger when immersed in the liquid should be considered as one Bindu

Concept of Bindu according to Sharangadhara Samhita: The dosage of Pratimarsha is two Bindu of oil, in each of the nostrils. Bindu is the quantity which falls at one stretch from the index finger after dipping it up to its two ridges and taken out. 8 such bindu are called 1 Sana (2.5 ml) which is the dose of Marsha nasya⁴.

Properties of Karpasastyadi Taila

Taila is considered superior in treating Vata Dosha, as it possesses Ushna and Snigdha Gunas. Karpasasthyadi Taila⁵ is indicated for Sarvanga Vata Vikara and has Vatahara and Brimhana action.

Table 1- Ingredients of Karpasastyadi Taila

Sl.No:	Drug	Latin name	Family	Part used
1.	<i>Karpasasthi</i>	Gossypium herbaceum	Malvaceae	Seed coat
2.	<i>Bala</i>	Sida cordifolia	Malvaceae	Root
3.	<i>Masha</i>	Phaseolus mungo	Leguminosae	Seed
4.	<i>Kulattha</i>	Dolichos biflorus	Fabaceae	Seed
5.	<i>Devadaru</i>	Cedrus deodara	Pinaceae	Bark, Heart wood
6.	<i>Rasna</i>	Pluchea lanceolate	Compositae	Leaves
7.	<i>Nagara</i>	Zingiber officinale	Zingiberaceae	Rhizome
8.	<i>Kushta</i>	Saussurea lappa	Compositae	Root
9.	<i>Sarshapa</i>	Brassica campestris	Cruciferae	Seed
10.	<i>Shatapushpa</i>	Anethum sowa	Umbelliferae	Fruit
11.	<i>Chavya</i>	Piper retrofractum	Piperaceae	Root, Fruit
12.	<i>Shigru</i>	Moringa oleifera	Moringaceae	Root bark
13.	<i>Punarnava</i>	Boerhavia diffusa	Nyctaginaceae	Root, Panchanga
14.	<i>Tila Taila</i>	Sesamum indicum	Pedaliaceae	Seed
15.	<i>Aja Ksheera</i>	Capra aegagrus-hircus	Bovidae	Milk

Table 2 - Pharmacodynamics of The Drugs In Karpasasthyadi Taila^{6,7}

Sl. No:	Name of drug	Rasa	Guna	Veerya	Vipaka	Karma
1	<i>Karpasasthi</i>	<i>Madhura</i>	<i>Guru, Snigdha</i>	<i>Kinchit Ushna</i>	<i>Madhura</i>	<i>Vatapitashamak Vedanasthapana</i>
2.	<i>Bala</i>	<i>Madhura</i>	<i>Laghu, Snigdha, Picchila</i>	<i>Sheeta</i>	<i>Madhura</i>	<i>Vedanasthapana Vatashamaka, Shothahara, Balya and Brimhana.</i>
3.	<i>Masha</i>	<i>Madhura</i>	<i>Guru, Snigdha</i>	<i>Ushna</i>	<i>Madhura</i>	<i>Vedanasthapana Vatashamaka, Balya, Brimhana</i>
4.	<i>Kulattha</i>	<i>Kashaya</i>	<i>Laghu, Ruksha</i>	<i>Ushna</i>	<i>Katu</i>	<i>Vedanasthapana Vatashamaka, Svedajanaka.</i>
5.	<i>Devadaru</i>	<i>Tikta, Katu, Kashaya</i>	<i>Laghu, Snigdha</i>	<i>Ushna</i>	<i>Katu</i>	<i>Vedanasthapana Vatashamaka, Balya, Brimhana., Shothahara</i>
6.	<i>Rasna</i>	<i>Tikta</i>	<i>Guru</i>	<i>Ushna</i>	<i>Katu</i>	<i>Vataharam, Vedanasthapana Shothahara, Sheetahara.</i>
7.	<i>Nagara</i>	<i>Katu</i>	<i>Laghu, Snigdha</i>	<i>Ushna</i>	<i>Madhura</i>	<i>Vedanasthapana Vatashamaka, Shothahara, Sheeta Prashamana.</i>
8.	<i>Kushta</i>	<i>Tikta, Katu, Madhura</i>	<i>Laghu, Ruksha, Tikshna</i>	<i>Ushna</i>	<i>Katu</i>	<i>Vedanasthapana Vatashamaka and Svedajanaka.</i>
9.	<i>Sarshapa</i>	<i>Katu Tikta</i>	<i>Laghu Snigdha</i>	<i>Ushna</i>	<i>Katu</i>	<i>Snehana, Shula - Prashamana, Balya</i>
10.	<i>Shatapushpa</i>	<i>Katu Tikta</i>	<i>Laghu Ruksha Tikshna</i>	<i>Ushna</i>	<i>Katu</i>	<i>Vedanasthapana Shothahara, Svedajanaka</i>
11.	<i>Chavya</i>	<i>Katu</i>	<i>Laghu Ruksha</i>	<i>Ushna</i>	<i>Katu</i>	<i>Shula Prashamana Kapha Vata –Shamaka</i>
12.	<i>Shigru</i>	<i>Katu Tikta</i>	<i>Laghu Ruksha Tikshna</i>	<i>Ushna</i>	<i>Katu</i>	<i>Vata-Kaphahara Shula-Prashamana, Shothahara, Svedajanaka</i>
13.	<i>Punarnava</i>	<i>Madhura Tikta Kashaya</i>	<i>Laghu Ruksha</i>	<i>Ushna</i>	<i>Madhura</i>	<i>Tridosha shamana Shothahara and Svedopaga</i>
14.	<i>Tila Taila</i>	<i>Madhura Kashaya</i>	<i>Guru Snigdha Vyavayi</i>	<i>Ushna</i>	<i>Madhura</i>	<i>Kapha-Vata Shamaka, Snehana, Vedanasthapana, Twachya and Balya, Yogavahi</i>
15.	<i>Aja Ksheera</i>	<i>Madhura Kashaya</i>	<i>Laghu, Snigdha Mridu</i>	<i>Sheeta</i>	<i>Madhura</i>	<i>Vata-Pitta Shamaka Balya and Sarva Vyadhihara</i>

Table 3: Chemical constituents of the drugs in Karpasastyadi Taila

Sl.No:	Name of Drug	Chemical constituents
1	<i>Karpasasthi</i>	Gossypol Caryophyllene, Pinene, Limonene.
2.	<i>Bala</i>	Ephedrine, Hypaphorine, Vasicinone, Choline, Betaine, Phytosterol
3.	<i>Masha</i>	Albuminoid, Starch and Fibre
4.	<i>Kulattha</i>	Genistein, Dalbergioidin, Phasecollidin
5.	<i>Devadaru</i>	Deodarin, Toxifolin Atlantone Etc
6.	<i>Rasna</i>	Galangin, Kaempferide, Diaryl Heptanoids
7.	<i>Nagara</i>	Gingerone, Ginger Glycolipids A, B &C, Paradol, D Curcumene
8.	<i>Kushta</i>	Sitosterol, Dehydro Costuhactone.
9.	<i>Sarshapa</i>	Sinalbin, Rutin, - Arabinogalactan.
10.	<i>Shatapushpa</i>	Neotigogenin, Amino- Acids.
11.	<i>Chavya</i>	Piperine, Sitosterol, Piplartine, Retrofractamide, B, C&D
12.	<i>Shigru</i>	Moringine, Sterols, Terpenes
13.	<i>Punarnava</i>	Beta-Sitosterol, Oxalicacid, Dglucose Punarnavoside, Hentriacontane Etc
14.	<i>Tila Taila</i>	Neutral-Lipids, Glycolipids& Phospholipids, Sesamose, Sesamolin Etc.
15.	<i>Aja Ksheera</i>	Amino acids, Fatty Acids, Lactose Etc

By considering the pharmacological properties of all the 15 known drugs it may be said that the combination may be having Madhura Kashaya Rasa; Snigdha, Laghu, Tikshna and Vyavayi Guna; Ushna Veerya; Madura Vipaka; Kapha Vata Shamaka properties with the specific actions like Vedanasthapana, Shothahara, Svedajanaka, Balya and Brimhana.

METHODOLOGY

Preparation of medicine

Kashaya was prepared by adding 32 litres of water reduced to 4 litres after adding the Kashaya Dravya. Moorchita Tila Taila was prepared. To this, Kashaya was added and boiled over mild fire. The Kalka Dravya are prepared by making a paste and added to the oil. Aja Ksheera is added to the boiling oil and stirred thoroughly over mild fire till the Paka Siddhi Lakshanas are obtained. Then cooled and filtered into airtight container and stored

Table 4: Quantity of drugs taken for preparation of Karpasastyadi Taila:

Drugs for Kashaya	Kalka Dravya	Taila for preparation	Ksheera
Karpasa Beeja - 1 kg	Devadaru 44g	Tila Taila – 2 litres	Aja Ksheera– 2 litres
Bala - 1kg	Bala 44g		
Masha - 1kg	Rasna 44g		
Kulattha - 1kg	Kushta 44g		
Kashaya - 4 litres	Sarshapa 44g		
	Nagara 44g		
	Shatapushpa 44g		
	Chavya 44g		
	Shigru 44g		
	Punarnava 44g		

Assessment of the quantity of one Bindu of Karpasasthyadi Taila: A study was conducted to fix the dose of Karpasasthyadi Taila in 60 samples to assess the quantity of one Bindu of oil between age group of 20-60 years, irrespective of sex, height, weight

and dimensions of index finger. Participants were asked to dip the first two parts of the right index finger (Phalanges) in Karpasasthyadi Taila, then was taken out and the total quantity which was dripping down were considered as one Bindu for that participant.

Result:

Table 5: Quantity of one Bindu of Karpasastyadi Taila as per the study

Sample size	Mean Bindu in ml	SD	SE
60	0.45	0.09353	0.01708

It was observed that mean Bindu is 0.45ml +_ 0.093 ml and SE of 0.017 ml.

DISCUSSION

The age group of 20-60yrs was selected, is to compromise a non-contraindicated age group for Marsha Nasya category. In 60 participants most of them got variables like 0.4 ml, 0.5 ml, 0.35 ml, 0.45ml etc. Variables observed ranged in between 0.35ml and 0.5 ml. Difference in variable found may be due to variation in right index finger size of the participants. From the study it was observed while doing the standardisation of Bindu Pramana for Nasya karma with Karpasastyadi Taila, one Bindu is 0.45 ml. The Madhyama Matra of Marsha Nasya is 8 Bindu. So Nasya dosage with Karpasastyadi Taila in Madyama Matra is 3.6ml.

CONCLUSION

For research works in Ayurveda to get global acceptance, it is essential to standardise the dosage of medicines that we use in Panchakarma therapies. As ayurvedic classics describe on Bindu Pramana for Nasya dosage, there is a need to convert and standardise the dosage in daily life standards which will have a universal acceptance. From the current study it is concluded that, dosage for Nasya karma with Karpasastyadi Taila, one Bindu is equal to 0.45 ml. in age group 20-60yrs. This dose can be considered as standard dose for further studies.

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