SHORT COMMUNICATION

Anuvasan Basti in escalating dose is an alternative for Snehapana before Vamana and Virechana: Trends from a pilot study

Priyadarshani Arvind Kadus, Surendra M. Vedpathak

Department of Panchakarma, Bharati Vidyapeeth College of Ayurved, Pune, Maharashtra, India

ABSTRACT

Oral administration of medicated fats (oil or ghee) is termed as *Snehapana*. It is an essential step before *Vamana* (therapeutic emesis) and *Virechana* (therapeutic purgation). Ayurveda physicians often experience a poor compliance in 10-15% patients for oral administration of medicated fats especially in escalating doses. Incomplete *Snehapana* sometimes creates a problem for a physician to prepare the patient for these processes. These inconveniences made us think about effective alternatives to counter drawbacks and improve acceptance of *Snehapana*. The present study was planned to assess the efficacy of *Anuvasana Basti* (oil enema) in escalating doses as an alternative for *Snehapana*. *Anuvasana Basti* of medicated sesame oil with rock salt was administered in 10 patients for three to seven days till they showed signs and symptoms of complete *Snehana*. The symptoms of *Snehana* like semisolid or loose stools, feeling exhausted without much exertion, lightness of body and oiliness of skin were observed. Though the *Snehana* symptoms varied in intensity, they were similar as they are produced after oral administration of fats. This trend suggests *Anuvasana Basti* in escalating dose is an alternative for *Snehapana* before administration of *Shodhana* therapy like *Vamana* or *Virechana*.

Key words: Anuvasan Basti, Snehapan, samyak snigdha lakshan

INTRODUCTION

In present days Ayurvedic physicians are showing much interest in *Shodhana* (detoxification and cleansing therapies), but many times they face difficulties in administrating preparatory procedures itself. They often experience a poor compliance for oral administration of medicated fats (*Snehapana*). Patients have a major problem in terms of quantity, taste, smell and oiliness of medicated fat. In our experience, at least 10-15% patients are seen complaining

Address for correspondence:

Dr. Priyadarshani Arvind Kadus, Sagar, Plot-2, Poorti Society, Dhankawadi, Pune - 411 043,

Maharashtra, India.

E-mail: agasti_ayurved@yahoo.com

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about having medicated fat orally. It has also been observed that some patients drop this treatment during the course, which causes sudden break in the treatment. Incomplete *Snehapana* sometimes creates a problem for a physician to prepare the patient for *Shodhana* process.

Sometimes premature development of aversion for medicated fat is also observed. All these conditions ultimately pose a problem for a physician to prepare the patient for *Shodhana*.

In other words, to convince the patient for taking medicated fat orally is a major problem for an Ayurveda practitioner. These inconveniencies made us think about effective alternative to counter drawbacks of *Snehapana*. Obviously, the alternative for having medicated fat orally needs to be "patient friendly". Development of such alternative is the need for today's era. This may further help popularising "Panchakarma processes" among the patients. Hence the present study was planned to evaluate whether sign and symptoms of proper *Snehana* can be achieved by administration of *Anuvasana Basti* (oil enema) in escalating dose instead of *Snehapana*.

Processed sesame oil along with rock salt was selected for oil enema. Sesame oil is Snigdha (unctuous) and

guru (heavy). Hence it can be used as a sneha, a substance that oleates body. Rock salt helps sesame oil to enter into subtle channels. Even though, Basti is a rectal route of drug administration; it is considered as an internal route of drug administration by Dalhana. It was therefore thought that Anuvasan Basti of sesame oil along with rock salt can prove as an effective modality to achieve symptoms of proper Snehana.

MATERIALS AND METHODS

Processed sesame oil (Batch no. 11119) was purchased from Agasti Pharmaceuticals, Pune. Sesame oil was processed with *Haridra* and *Manjishtha*. This process is called as *Murchana* and it is done to reduce *samata* (~undigested part) of sesame oil. The oil was standardized at Hi-Tech Laboratory, Pune. Some physico-chemical tests like refractive index (1.47 at 25°C), iodine value (6.748), moisture content (below the detection limit), saponification value (193.45), microbial tests like tests for pathogens like *Escherichia coli*, *Salmonella*, *Staphylococcus aureus* etc., were done. The oil found free from pathogens.

After obtaining Institutional Ethics Committee approval, an open label pilot clinical study was carried out.

Inclusion criteria

Patients of either gender between the age group of 20 and 60 years with *bahudosha* or *utklishta dosha* (signs of increased or perturbed *dosha*) and were advised *Vamana* or *Virechana* treatment were selected irrespective of their disease.

Exclusion criteria

Patients who were suffering from anal diseases (haemorrhoids, fissure, fistula, etc.) and those, who have been described as contraindicated for *Basti*, were excluded.

Dashavidha and ashtavidha (10 and 8-fold) examinations were done in every patient. These examinations included prakriti (constitution), agni and koshtha (tendency of a parson to pass stool) assessments by asking questions and clinical examination. If samavastha (indigested stage) of dosha was observed; Hingwashtaka Choorna in the dose of 1 g was given before meal for 3-4 days to digest dosha. As in indigested stage of dosha, Shodhana process is contraindicated; administration of Hingwashtak Choorna is necessary.

Following routine physical and systemic examination, oil enema with processed sesame oil along with rock salt was administered to 10 patients.

Standard operative procedure for Anuvasana Basti

Every patient was asked to come to *Panchakarma* Department immediately after having a breakfast (around 9.30 am).

Warm sesame oil was applied on the abdomen and lumber region and fomentation were done locally. Left lateral position was given to the patient with left leg extended and right leg flexed at knee joint. Especially designed enema pouch with prescribed quantity of processed sesame oil and rock salt was kept in warm water for 15 min to make the contents warm.

Lubricated catheter was inserted inside the anus parallel to the vertebral column. Oil was pushed inside slowly and steadily. Patient was asked to lie on the bed with his legs in an elevated position for 10 min. Patients were advised to drink lukewarm water throughout the day and immediate after administration of oil enema. Feeling of hunger for every patient was observed and accordingly they were advised to have light diet, preferably soup of green gram whenever they felt hungry. Daily assessment was done for symptoms of proper *Snehana*.

The dose of sesame oil was 120 ml with 500 mg rock salt on the 1st day. Sesame oil was increased by 25 ml and rock salt by 100 mg/day.

Other procedures like dosha Utkleshaka ahara (diet that perturbs dosha), external oleation and fomentation were carried out in the same manner as that of our routine Shodhana. For Vamana, oil application and fomentation were carried out on the last day of oil enema, 1 day prior to Vamana. On Vamana day the oil enema was not administered. The patients were asked to eat curd, jaggery, and banana with milk for aggravation of Kapha, was given as doshotkleshaka ahara. This diet facilitates elimination of dosha through Vamana. For Virechana, oil application and fomentation were carried out for 3 days, after completion of oil enema administration. On the 3rd day of oil application and fomentation, patient had asked to include Kokam Sherbet in his diet, which is considered as Anulomaka, that is, helpful for therapeutic purgation.

Assessment criteria for evaluating the symptoms of proper *Snehana*

Symptoms of proper *Snehana* like loose or semisolid stools (up to digestion of medicated fat), exhaustion without much exertion were assessed. Exact retention time of oil enema was noted as a measure of *Vatanulomana*. Oiliness of skin was asses with the oil drop test. A drop of sesame oil (in the size of pin head) was kept on the dorsal part of the palm and the time of absorption (in minutes) was recorded before and after the course. ^[2] This was done to assess the oiliness of the skin. The thought behind this is if the oiliness of skin increases, the time period for absorption of oil should increase. Decreased time of absorption indicates dryness.

Statistical analysis

Paired *t*-test was applied to analyse oiliness of skin before and after completion of oil enema. Time required (in minutes) for absorption of oil was the variable for this test.

OBSERVATIONS AND RESULTS

A total of ten patients were recruited in the study. As depicted in Table 1, out of ten, seven patients were having bahu kapha avastha (aggravated Kapha) along with either Vata or Pitta. Of these seven patients four were advised Vamana considering disease and patient strength, season, accompanied dosha and direction of doshotklesha (exacerbation of dosha). Doshotklesha was seen in three patients in terms of heaviness of head, feeling of stickiness in throat. Utklesha is liquefied, moisturized, separated state of dosha. Urdvaga utklesha means when their site and movement is towards mouth and adhoga utklesha means movement of such dosha towards rectum. One patient, who was posted for Vamana didn't have any symptom of utklesha, may be due to the dormant state of dosha. One patient was having utklishta Pitta dosha and advised for Vamana as direction of dosha was found towards mouth. One patient with bahu Pitta avastha, and another with bahu Kapha Pitta were considered for Virechana. Adhoga utklesha was considered in terms of loose or sticky motions for

three to four times, heaviness to the lower abdomen and decreased appetite.

All patients showed symptoms of proper Snehana, though the number of symptoms and their intensity varied. Loose stools were seen in all 10 patients. Heaviness of the body was seen in five patients. Exhaustion without much exertion was observed in eight patients. Passing of stool, urine and flatulence without any obstruction for the first time was seen in a time period ranging from minimum 2 to maximum 14 h. In patients of mrudu koshtha, time required for Vatanulomana (passing of stool, urine and flatulence without any obstruction) was (2-6 h), which was less than that of madhyama (3-12 h) and krura koshtha patients (7-14 h). Oiliness of skin was seen in all 10 patients, which was evident from a significant increase (P = 0.0006) in time required to absorb the oil drop. Mean time before Snehapana was 3.61 min (SD \pm 1.34) and after treatment was 6.83 min (SD \pm 3.25). Outcomes of Vamana and Virechana are described in Table 2.

DISCUSSION

Basti is described as an internal route of drug administration by Dalbana^[1] and is considered as one of the methods of

Table 1: Patient details

Patient	1	2	3	4	5	6	7	8	9	10
Age (years)	29	36	30	50	35	27	23	50	40	45
Koshtha	Madhyam	Mrudu	Madhyam	Krura	Madhyam	Mrudu	Mrudu	Madhyam	Madhyam	Krura
Agni	Manda	Tikshna	Tikshna	Visham	Tikshna	Manda	Tikshna	Tikshna	Manda	Tikshna
Prakriti	Pitta	Kapha	Vata	Vata	Vata	Kapha	Kapha	Pitta	Kapha	Vata
	Kapha	Vata	Pitta	Pitta	Pitta	Vata	Pitta	Kapha	Vata	Kapha
Diagnosis	Eka	Vandhytva	Kasa	Apasmar	Urdhvag	Vichar	Sthaulya	Prameha	Vicharchika	Swastha
	Kushtha	Sthaulya		Avegavastha	Amlapitta	Chika				
Dosha	Bahu	Bahu	Bahu	-	Utkleshit	Bahu	Bahu	Bahu	Bahu	-
Avastha						Utkleshit				
Dominant dosha	Kapha	Kapha	Kapha	Kapha	Ptta	Kapha	Kapha	Pitta	Kapha	-
	Pitta	Vata	Vata			Vata	Vata	Kapha	Pitta	
Chikitsa	Vamana	Vamana	Vamana	Vamana	Vamana	Virechana	Virechana	Virechana	Virechana	Virechana
VA										
Minimum	5	2	6	8	3	4	3	7	4	6
Maximum (in h)	9	6	10	14	9	12	6	12	7	10
ST										
ВТ	5.32	4.49	3.15	4.48	1.32	1.45	3.09	4.3	4.22	4.34
AT (in min)	12.4	5.22	4.3	9.27	2.45	2.56	7.24	7.57	10.13	7.18
Duration (in days)	7	7	7	7	7	5	7	7	7	7
Varcha	Asamhat	Asamhat	Asamhat	Mrudu	Picchil	Mrudu	Mrudu	Asamhat	Picchil	Asamhat
Parikshan				Asamhat	Asamhat	Asamhat	Asamhat		Asamhat	
Klama	Present	Present	Present	-	Present	Present	Present	Present	Present	-
Other symptoms	Angasada	Udara-	Angasada	-	Angasada	Angasada	AdhoUdara-	Shiro-	Angasada	Kshudha-
	Kantha-	gaurava	Shiro-		Kantha-Upalepa		gaurava	gaurava		mandya
	upalepa	Urastyanata	gaurava				Kshudha-			
	Shiro-gaurava	Kantha-	Hrillas				mandya			
		upalepa	Tiktasyata							

VA=Vatanulomana, ST=SnigdhaTwak, BT=Before treatment, AT=After treatment

Table 2: Shodhana status after administering Anuvasan basti as Snehana

Vaigiki Shuddhi		Antiki	Laigiki Shuddhi	Observations during follow-up			
Uttam	Madhyam	Неепа	Shuddhi	(symptoms)			
Vamana							
6	2	2	Pittanta	Lightness of the body (no weight loss)	Discharge and discoloration reduced		
4	4	3	Pittanta	Lightness of the body	Lost 2 kg after 15 days		
8	2		Pittanta	Lightness of the body (weight loss up to 1 kg)	Coughing and expectoration reduced		
7	-	5	Pittanta	Lightness of the body (no weight loss)	-		
6	3	3	Tikta syata	Lightness of the body (no weight loss)	Nausea and vomiting reduced		
					Sourness of throat reduced		
Virechana							
13	2		Kaphanta	Lightness of the body (weight loss 1.5 kg)	Discoloration and itching reduced		
16	4	2	-	Lightness of the body	Lost 3 kg after 16 days. Accumulation of fat on abdomen decreased		
6	5	3	Kaphanta	Lightness of the body (weight loss 1 kg)	-		
11	6	2	-	Feeling fresh (no weight loss)	Discoloration decreased		
13	4	4	-	Lightness of the body (no weight loss)	Feeling fresh		

Snehana.^[3] Hence, whenever patient is not ready for having medicated fats orally, anal route can be considered as an alternative. This route is supported in the concept of *Vicharana*.^[4,5]

In this study, we observed symptoms of proper Snehana. To our surprise, four patients showed urdhvaga utklesha with symptoms such as nausea, feeling of stickiness in throat, heaviness in head. This shows that effect of Basti is not restricted to ano-rectal region locally. In this context, Chakrapani states that Basti reaches up to duodenum. [6] This statement is supported by Best and Taylor who states "materials introduced by enema, may in some instances pass through the valve into the ileum. Such incompetence may permit the enema fluid to reach the duodenum."[7] However, considering the symptoms observed in our study, we may infer that the effect of Basti can be seen even beyond duodenum. It should be however noted that the extent of vitiated dosha, season and other elements in the body also play the major role in the process of utklesha.

Two patients showed *adhoga utklesha* with symptoms like feeling heavy in the lower abdomen, sticky motions, and decreased appetite.

According to *Charaka*, *utklesha* of *dosha* and *agnivadha* (loss of gastric fire) are manifested if oil enema is administered continuously. Here oil enemas were administered not only for many days, but also in escalating dose. Due to oil administration, we could observe *dosha utklesha* in the study.^[8]

Further we observed that the duration required for achieving symptoms of proper *Snehana* after administration of oil enema was similar to the textual reference of internal oleation, that is, *Snehapana*.^[9] The patients having *krura koshtha* required maximum period, that is, 6-7 days for

getting symptoms of proper *Snehana*, whereas the patients of *mrudu koshtha* required 4-5 days only.

Interesting observation in the study was that, oiliness of skin was increased in all 10 patients after administrating oil enema in escalating dose for 5-7 days. *Sushruta* supports this phenomenon as he states that as tree irrigated in its root level attains branches with leaves, flowers and fruits.^[10] In the same way; oil enema administered into the rectum performs significant results up to head to toe in the human body. *Veerya* (potency) of *Basti* spreads all over the body even though it is administered in rectum.^[11] *Sushruta* further quotes day wise spreading of enema. On the 4th day *Basti* reaches up to *Rasa dhatu* and on 5th day upto *Mamsa dhatu*. It indicates that *sneha* can reach up to skin within 5 days as the skin is *upadhatu* of *Mamsa and vyaktisthana* (site of manifestation) of *Rasa*.^[12]

This study, however, has some limitations in terms of two of the symptoms of proper *Snehana* viz. *agni deepti* (increase in digestion capacity) and *Snigdha varcha* (oily stool). In *Snehapana*; "jatharagni" (gastric fire) is considered whereas for oil enema; "shoshyamana" vahni (a type for gastric fire responsible for absorption) is important even though it is supported and powered by jatharagni itself. *Snehapana* is given on an empty stomach and the digestion takes place according to the jatharagni, whereas oil enema is administered after having the food. Hence, we could not consider the symptom "agnideepti" in this study. On the contrary, three patients showed deceased appetite.

In the process of *Snehapana*, after a certain period, stool becomes oily due to saturation of *sneha* in body. Whenever defectation takes place after administration of oil enema, patient could not differentiate between oiliness of stool and stool along with oil.

From these results, we can conclude that the symptoms of proper *Snehana* were observed after administration of oil enema and hence it can be considered as an alternative for having medicated fats orally, especially in patients having an aversion for fat.

Further, we did not observe any adverse effect or symptoms of *atisnigdha* (excessive oleation) or *asnigdha* (incomplete oleation) in the study.

Recent researches have suggested that rectal absorption can prove the good alternative rout of drug administration as it provides partial avoidance of first portal pass metabolism. It has been demonstrated that the rectal route is more efficient than even intravenous route.^[13]

Thus, this pilot study suggests the use of *Anuvasana Basti* as an alternative method for *Snehapana*. Further studies using different medicated fats in different dosing schedules (constant dose, escalating dose etc.) in a larger sample size could be confirmatory. A study with larger sample and with two different doses of oil enema has been planned, which may provide further information.

CONCLUSION

Anuvasana Basti with escalating dose can be considered as an alternative method for Snehapana, that is, having medicated fat orally prior to Shodhana, without any adverse effect and with similar symptoms of proper Snehana as that of Snehapana.

Outcomes of *Vamana* and *Virechana* are also very promising after administration of *Anuvasana Basti* with escalating dose as a preparatory process of *Shodhana*.

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