

TO STUDY THE COMPARATIVE EFFECT OF SAINDHAV, SHATPUSHPA YUKT TIL TAILA ANUVASAN BASTI & TIL TAILA ANUVASAN BASTI IN MANAGEMENT OF PAKVASHAYGAT VAT

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ABSTRACT

The aim of study was to evaluate the comparative effect of anuvasan basti containing tila taila with shatpusha churna, saindhava and plain tila taila as kalbasti schedule [16 days] in the management of pakvashaygat vata. In this study Registered patients were divided into two groups. In group A there was 30 patients of pakvashaygat vata in which anuvasan basti containing tila taila, shatapushpa churna and saidhava was given for 16 days. In group B there was 30 patients of pakvashaygat vata in which anuvasan basti containing tila taila was given for 16 days. Effect of therapy on the basis of subjective parameters and objective parameters was studied. Subjective parameters for assessment were Aantrakujan[][Nabhishula [pain in

abdomen] Krucchhmutra[difficulty in passing urine] Krucchhpurish [difficulty in passing stool] Aanaha[gaseous distension] Trikvedana [pain in sacrum]. Objective parameter for assessments were Abdominal girth in centimeter as Aanaha is one of the symptom of Pakvashayagata vata which can be correlate with generalized gaseous distension. and Dharankal [Retention time] of anuvasan basti. To reach the final result and conclusion, the data that had generated during the study was exposed to statistical analysis. It was observed that anuvasan basti containing tila taila with shatapushpa churna and saidhava anuvasan basti with only tila taila anuvasan basti had good results in pakvashaygat vat. Statistically there was no difference in both treatment. Both treatments were equally important

KEYWORDS: Anuvasan basti, Pakvashayagat vata, Dharankal, Aantrakujan, Aanaha, Krucchpurish, Krucchhmutra.

INTRODUCTION

The ayurvedic approach to the treatment of disease consists of two major procedures- 1.samsodhana chikitsa (purificatory therapy) 2.samsamana chikitsa (pacificatory therapy). Samsodhana chikitsa is the radical treatment of a disease and is supposed to eradicate or eliminate the vitiated dosas from the body, thus completely preventing or curing the disease. Samsamana chikitsa is the conservative treatment which consists of conservative measures like langhana (fasting) pachana (digestion) etc. by administration of appropriate drugs designed for subsiding or alleviating the vitiated dosas thus preventing temporarily or subsiding a disease. It is believed that the disease cured by samsodhana therapy never relapse while disease cured by samsamana treatment may recur.^[1] Panchakarma therapy is usually carried out with a two fold goal i.e. 1.samsodhana or biopurification 2.samsamana or rehabilitation.^[2] The classical panchakarma therapy consists of the following five karmas viz vamana virechana anuvasanabasti aasthanabasti sirovirechana.^[3] Aasthanabasti is also known as niruhabasti. Anuvasanabasti is essentially a sneha [oleus] basti. Sushruta includes raktamokshana also under panchakarma.⁴ Basti is said in Ayurveda as half of the whole treatment schedule.^[5] It is said to control almost all the diseases, all the dosha and it is very acute on its onset of action^[6] though it is typically scheduled to eliminate and pacify vayu. The relative importance of vata is already known as it has predominant influence on the three principle routes of diseases namely the sakra, koshta and the marma. Moreover vayu is responsible for the formation, communication and spread of sweda, mala, mutra, kapha and biological substances in the body.⁷ Basti treatment and tilataila is the best treatment for vayu.^[8] Pakvashayagat vata is a condition in which vata is vitiated in pakvashaya causing aantakujan, shula, aatopa, krucchmutra, krucchapurish and aanaha, trikavedana.^[9] Treatment of pakvashayagat vata is same as udavarta chikitsa i.e. varti, basti, snehavirechan, anulomana, snehana and swedana.^[10] Pakvashayagat vata has become quite common these days. abdominal distension, belching and flatulence are commonest symptoms related reason seeing any general physician. Desk bounded lifestyle, mental and emotional stress, psychological situation, extended work hours causes symptoms of pakvashayagat vata which ultimately leads to disturbed metabolism. The main abode of vayu is said in ayurvedic classics as pakvashaya and basti pacifies this vayu by its potency lodging in the pakvashaya.^[11] so dhatankaal of anuvasan basti in pakvashaya is the most important for its action. Aanaha is one of the symptoms of Pakvashayagatavata which can be correlated with generalized gaseous distension. so abdominal girth and dharan kaal were taken as objective criteria. In major samhitas except sushruta and most of today's practitioner use tilataila for

anuvasan basti. Sushruta told use of shatpushpa churna and saidhava as prakshepa along with tila taila in anuvasan basti.^[12] So its essential to study the contents of anuvasan basti as it is major treatment. So comparison of tila taila anuvasan basti and tila taila with shatapusha saindhava anuvasan basti was carried out.

MATERIALS AND METHODS

For the clinical part of present study, 60 patients suffering from pakvashayagata vata were randomly selected from OPD and IPD of Ayurveda institution, these 60 patients were divided into two groups and were subjected to following therapeutic regimen.

Group A

In this group course of kala basti [16 days coursed] with the selected combination of niruha and anuvasan basti, as group A has been intervened anuvasan basti with shatpushpa-saindhav mixed tilataila.

Group B

In this group course of kala basti [16 days coursed] with the selected combination of niruha and anuvasan basti has been intervened anuvasan basti with tilataila.

In Group A and Group B, no other ayurvedic shaman chikitsa has been given in due course of kala basti.

Method of niruha basti preparation

For the present basti therapeutic study following drugs were taken for preparation of basti.

For preparation of dashamoola niruha, 200 gms of dashamoola bharada was boiled with 3200 ml of water to remain 800 ml of dashamoola kwatha.

Total quantity of niruha basti- 960 ml

Kwath-800 ml, Madhu- 25 ml, Dashamoola churna-30 gm, Tila taila- 100 mlSaindhava- 5 gm.

In the beginning Honey, and saindhav had been added to the warm til taila oil and stirred to mix well. Thereafter, the paste of drugs had been added and stirred again. To this, the liquid (decoction) had been added and stirred further with the help of stirrer. This recipe thereafter, be placed in the bastiyantra.

Method of anuvasan basti preparation

Total quantity of anuvasan basti- 120 ml.

Group A

Tila taila-120 ml, Shatapushpa churna- 1 gm, Saindhav- 1 gm, Til taila oil heated indirectly by placing it in hot water till it became lukewarm, shatapushpa and saindhav each 1 gm added in it as prakshep form.

Group B

Tila taila- 120 ml.

Criteria for selection of patients**Inclusion Criteria**

1. Patients having minimum 4 and maximum all textual symptoms of pakvashayagata vata were taken for this study
2. Sex- Male and Female
3. Age- 20 to 70 years
4. Patients ready to give written informed consent.

Exclusion Criteria

1. Patients having any structural deformities and who need surgical care had been excluded.
2. Patients having major illness for longer period and systemic pathogenesis eg. Cardiac disorders, chronic renal failure had been excluded.
3. Patients who were not willing for clinical trial.
4. Patients of neoplastic conditions.
5. Basti ayogya [contraindicated].
6. Age less than 20 and more than 70.

Kal[time]-Niruhbasti-morning empty stomach

Anuvasanbasti-morning after breakfast

Clinical Assessment- 0-8-16 days

Follow Up was maintained after 8 days of completion of therapy.

Study design-Total 60 patients of *pakvashayagata vata* had been examined by-open randomized comparative prospective study.

Bastidan vidhi [procedure of basti process]

Purvakarma-[preparation of patient and drug]

1. Light food was advised
2. Patient was asked to evacuate the bowel and bladder
3. Abhyanga and nadisweda- sesame oil was applied to the low back, pelvic region and lower abdomen followed by nadiswedana[sudation].
4. Patient was asked to lie down in left lateral position.
5. The tila taila to be administered was heated in the water bath to make it lukewarm
6. Lukewarm oil was filled into the syringe. The piston was fixed to the syringe. Any air in the syringe was cleared by pushing the piston. The rubber catheter was fixed to the nozzle of the syringe

Pradhan karma-[main procedure]

1. Introduced catheter into the anal canal in the direction of the spine for about 4 to 6 inches.
2. Oil syringed into the rectum, simultaneously patient was encouraged to take deep inspiration
3. When oil is pushed into the rectum the catheter was slowly pulled out.

Pashchat karma[after procedure]

Immediately after the basti, gentle strokes were placed on the patient buttocks. To prevent the early evacuation of the basti, the patient was placed in the supine position and then the buttock of the patient elevated by pushing a pillow beneath the buttocks

Schedule of basti in kal bastikrama i.e. 16 days course

Days	1 st	2 nd	3 rd	4 th	5 th	6 th	7 th	8 th
Format	A	N	A	N	A	N	A	N
Days	9 th	10 th	11 th	12 th	13 th	14 th	15 th	16 th
Format	A	N	A	N	A	N	A	A

A- Anuvasan basti N- Niruha basti

Ethical Consideration

No objection certificate from institutional ethical committee obtained. Written consent of patients had been taken prior to initiation of study.

Criteria for assessment

Subjective criteria

The subjective parameter were totally qualitative and were assessed by self-designed grading in account with symptoms.

1. Aantrakujan: 0-absent 1-mild 2-moderate not irritable for patient 3- severe irritable for patient
2. Nabhishula-0-absent 1-mild 2-moderate 3-severe
3. krucchhamutra-0-absent 1-mild pain during mutrapravrutti 2-moderate but bearable pain during mutrapravrutti 3-severe unbearable pain during mutrapravrutti
4. krucchhapurish-0-absent 1-defaecation with pressure 2-defaecation with mild laxative 3-defaecation with strong purgative
5. Aanaha-0-absent 1-feeling of floating abdomen 2-Distension can be elicited but not affecting routine activity 3-Distension elicited clinically and causing pain and affecting routine activity
6. Trikavedana-0-absent 1-mild pain 2-moderate pain not affecting walking 3-severe pain affecting walking

Objective criteria

1. Abdominal girth- in cm
2. Dharan kaal of basti- Period of retention of basti were noted in minute.

Statistical assessment

1. For subjective criteria- Wilcoxon-matched pair signed rank test was applied.
2. For objective criteria- paired t-test was applied.

OBSERVATION AND RESULT

TABLE: 1 EFFECT OF THERAPY ON SUBJECTIVE PARAMETERS IN GROUP A

Sn	Symptom		Mean	SD	SE	W	N	Z	P
1	Aantrakujan	BT	1.467	0.628 8	0.1148	131	21	2.27	0.013
		AT	1.033	0.490 1	0.08949				<0.05
		DIF	0.433 3	0.858 4	0.1567				
2	Nabhishul	BT	1.533	0.507 4	0.09264	161	22	0.042	0.003 <0.05
		AT	1.067	0.739 7	0.1350				
		DIF	0.466 7	0.730 3	0.1333				

3	Krucch Mutratva	BT	1.933	0.583 3	0.1065	263	26	3.340	0.0004
		AT	1.167	0.833	0.1523				<0.001
				9					
		DIF	0.766	0.897	0.1629				
				6					
4	Kruccha purishatva	BT	1.900	0.661	0.1208	198	28	2.254	0.0139
				8					<0.05
		AT	1.400	0.770	0.1406				
				1					
		DIF	0.500	1.009	0.1841				
5	Aanaah	BT	1.933	0.691 5	0.1262	141	25	1.89	0.0399
		AT	1.500	0.900	0.1644				<0.05
				2					
		DIF	0.433	1.073	0.1958				
6	Trikvedana	BT	1.900	0.803	0.1466	_20.0	20	-0.37	0.6973
			0	0					>0.05
			2.000	1.203	0.2197				
		AT	0						
		DIF	0.100	1.029	0.1878				
		F	0						

In Aantrakujan, Nabhishula, Krucchamutra. Krucchpurish, Aanaah, $P < 0.05$ which is statistically significant. In Trikaavedna, $P > 0.05$ which is statistically insignificant.

TABLE: 2 EFFECT OF THERAPY ON SUBJECTIVE PARAMETERS IN GROUP B

Sr. No.	Symptom		Mean	SD	SE	W	N	Z	P
1	Aantrakujan	BT	1.567	0.5683	0.1038	132	23	2.0	0.0229 <0.05
		AT	1.200	0.6103	0.1114				
		DIFF	0.3667	0.8087	0.1477				
2	Nabhishul	BT	1.767	0.6261	0.1143	153	27	1.83	0.0456 <0.05
		AT	1.367	0.8503	0.1552				
		DIFF	0.4000	1.037	0.1894				
3	Krucch mutratva	BT	2.033	0.4138	0.07556	238	27	2.85	0.0011 <0.001
		AT	1.467	0.6814	0.1244				
		DIFF	0.5667	0.7739	0.1413				
4	Kruccha Purishatva	BT	1.833	0.5307	0.09689	127	22	2.061	0.0243 >0.05
		AT	1.433	0.7279	0.1329				
		DIFF	0.400	0.8944	0.1633				
5	Aanaaha	BT	2.500	0.7768	0.1418	205	30	2.10	0.0238 >0.050
		AT	2.000	0.9097	0.1661				
		DIFF	0.500	1.137	0.2076				
6	Trikvedana	BT	2.00	0.5872	0.1072	61.00	26	0.77	0.4152 >0.05
		AT	1.833	1.020	0.1862				
		DIFF	1.667	1.177	0.2149				

In Aantrakujan, Nabhishula, Krucchamutra, Krucchpurish, Aanaha, $P < 0.05$ which is statistically significant. In Trikavedna, $P > 0.05$ which is statistically insignificant

TABLE-3 COMPARISION BETWEEN TWO GROUPS WITH RESPECT TO SYMPTOMS SCORE BY MANN-WHITNEYTEST

Sr No.	Symptoms	Mean \pm SD		Confidence Limit		P value >0.05
				Lower	Upper	
1	Aantrakujan					
	Group A	0.4333 \pm	0.8584	0.1129	0.7538	0.9940
	Group B	0.8584 \pm	0.4333	0.1129	0.7538	>0.05
2	Nabhishul					
	Group A	0.4667 \pm	0.7303	0.1940	0.7393	0.7480
	Group B	0.3333 \pm	1.061	-0.062	0.7296	>0.05
3	Krucchmutratva					
	Group A	0.7667 \pm	0.8976	0.4315	1.102	0.2709
	Group B	0.5000 \pm	0.8200	0.1938	0.8062	>0.05
4	Krucchpurishatva					
	Group A	0.5000 \pm	1.009	0.1234	0.8766	0.4378
	Group B	0.3333 \pm	0.9223	-0.0110	0.6777	>0.05
5	Aanaha					
	Group A	0.4333 \pm	1.073	0.03284	0.8338	0.6593
	Group B	0.5000 \pm	1.137	0.07543	0.9246	>0.05
6	Trikvedana					
	Group A	-0.1000 \pm	1.029	-0.4842	0.2842	0.4845
	Group B	0.1667 \pm	1.177	-0.2727	0.6061	>0.05

The results of Mann Whitney Test, applied to compare the both groups was statistically insignificant. ($P > 0.05$).

From statistical analysis it can be supposed that there is no difference in both the therapies.

TABLE: 4 EFFECT OF THERAPY ON ABDOMINAL GIRTH BY PAIRED T TEST

Sr no	Abdomi nal girth	Mean \pm SD		Mean of Diff SD	Sed	T	P
		BT	AT				
1	Group A	71.267 \pm 3.667	69.967 \pm 3.518	1.3 \pm 2.070	0.3780	3.439	0.0018
2	Group B	70.700 \pm 4.786	69.767 \pm 4.305	0.93 \pm 1.96	0.3586	2.603	0.0144

Abdominal girth- the girth in group A was 1.3 \pm 2.070 paired 't' was 3.439 $p < 0.05$, which was statistically significant. In case of group B the abdominal girth was 0.93 \pm 1.96. paired 't' was 2.603. $p < 0.05$, which was statistically significant.

Table: 5 Comparison Between Two Group With Respect To Abdominal Girth By Unpaired T Test

Sr No	Abdominal Girth by h	Mean±SD		Mean of difference	T	p
		BT(8 days)	AT(16 days)			
1	Group A	71.267±3.667	69.967±3.518	-1.300	.401	0.1665 >0.05
2	Group B	70.700±4.786	69.767±4.305	-0.933	0.794 2	0.4303 >0.05

Abdominal girth by unpaired t test –

In Group A t value was 1.401 $p > 0.05$, which was statistically insignificant. In group B t value was 0.7942 $p > 0.05$, which was statistically insignificant.

Table: 6 Effect Of Therapy On Dharankaal[Retention Time] Of Basti By Paired T Test

Sr no	Dharan kaal	Mean±SD		Mean of Diff SD	SEd	T	P
		8 th day	16 th day				
1	Group A	64±47.894	84.83±57.12	-226.83 ± 200.5	36.606	6.197	<0.0001
2	Group B	290.8±188.3	161.3±131.1	-76.500 ±152.62	27.865	2.745	0.0103

Dharan kaal in group A was -226.83 ± 200.5 paired 't' was 6.197 $p < 0.0001$, which was statistically extremely significant. In case of group B the Dharankaal was -76.500 ±152.62 paired 't' was 0.0103 $p < 0.01$, which was statistically significant.

Table: 7 comparison between two group with respect to dharankaal[retention time] of basti by unpaired t test

Sr.no	Dharan kal	Mean±sd		Mean of difference	T	P
		8 th day	16 th day			
1	Group a	64.00±47.894	84.833±57.122	20.833	1.531	0.1313 >0.05
2	Group b	290.83±131.19	161.33±131.19	-129.50	3.090	0.0031 <0.001

Dharan kal by unpaired t test

In group A t value was 1.531, p value >0.05 which was statistically insignificant. In Group B t value was 3.090, p value <0.001 which was statistically very significant.

DISCUSSION

In results subjective criteria and objective criteria of both groups were statistically significant that means both groups were effective in pakvashayagata vata. Comparison between two groups was statistically insignificant that means group A and group B had same results in symptoms of pakvashayagat vata. There was no difference in treatments of both group.

Pakvashayagat vata is one of the vatavyadhi. Best chikitsa for vata dosha is Basti and best medicine is taila specially tila taila.^[13] specific treatment of pakvashayagat vata also contains basti, snehan swedan, anuloman, gudvarti and sneha virechan.^[14] Basti procedure is combination of niruha and anuvasana basti. Anuvasan is sneha basti i.e. tila taila. Sushruta advised of use tila taila with shatpushpa saindhav for anuvasan basti. so to see what is the difference between tila taila anuvasan basti and tila taila with shatpushpa sindhav anuvasan basti, this research was projected.

While describing the action of anuvasan basti Acharya Charak has quoted that man grows strong by means of snehabasti just as tree fed with water at its root, puts forth green leaves, delicate sprouts and in due time grows into big tree full of blossom and fruit.

How basti is introduced into –pakvashay reaches all over the body?

This fact is well explained by Chakrapani while commenting on above citation. He has quoted the reference of Parashara that Guda (Anus) is Mula of the body where all the siras are located. The sneha administered Guda reaches up to head giving the nutrition to the body. According to Amarkosha, the word 'Payu' a synonym of Guda gets its name from its capacity to drink Basti dravya or oil.^[15]

Acharya Sushruta has mentioned that the virya (potency) of the drugs given in the basti reaches all over the body through the srotasa (minute channels) in the same way as the water poured at the root of plant reaches up to leaves. He has further explained that even though Basti drugs quickly come out alone or with Mala, their virya acts over the whole organism by the action of Apana and other Vayu. This action takes place just like as sun draws moisture from the earth. Vata is chief cause for aggravation of the diseases, when aggravated it destroys the body, there is no other treatment except basti to control it, just like the borders of the ocean for controlling the waves produced by the wind.^[16]

Acharya Ashtang Sangraha has elaborated this thing as firstly the virya of basti drugs reaches the apana vayu, then it is handed over to saman vayu. After nourishing samana vayu it reaches the vyana vayu, thereafter it acts on Udana vayu and prana vayu. When all these 5 types of vata get their normal state, they promote health. Then these virya of basti drugs acts on pitta and kapha to bring them in normal states and provides them nourishment. In this way, the virya of Basti drug is carried in Tiryak Pradesh by vyana vayu, by apana vayu in

adhaha Pradesh, by prana vayu in urdhwa Pradesh. Just as whole farm gets its nourishment from water supplied to it through channels; the whole body gets nourishment by the virya of bati drugs carried by 5 types of vata through srotasa.^[17]

Basti drug first reaches to the pakvashaya. Pakvashay is mulsthana (main site) for Vatadosha. Basti, by pacifying vikrita vata Dosha at its Mulasthana, gets control on vata all over the body. Pakvashay is the site of purishadharakala. Basti drugs directly acts on Purishadharakala so direct action takes place on Pakvashay. The basti dravya located in pakvashay removes the sanchita (accumulated) doshas from the prushta, kati and koshta Pradesh.^[18]

According to modern medical science, as per Basti (enema) concerned in transrectal route, the rectum has rich blood supply and lymph supply and Anuvasana taila can cross the rectal mucosa like other lipid membrane. Thus by entering in general circulation, Basti drugs can acts on whole body. Basti must be acting through the nervous system or through the enteric receptors. It must be increasing the secretion of local enzyme or neurotransmitters. Basti influence the normal bacterial flora thus it increases the endogenous synthesis of vitamin B2 and vitamin K. Basti makes the whole metabolism normal.^[19]

Shatapushpa (*Foeniculum vulgare*) is present in Anuvasanopaga and Asthapanopa Mahakashaya of Charaka. It is Vatanulomaka in action and acts mainly on Apana and Samana Vayu.^[20]

Saindhava is Vishyandi, Sukshma, Tikshna, Ushna and Vataghna in action. It promote evacuation of bladder and rectum. On account of its Sukshma property it can go in the microchannels of body. Thus molecule of other contents of Basti if bounded with Saindhava may also reach up to the micro-channels. Here Saindhava plays the role of a carrier, and helps to act the Basti in deep level.^[21]

CONCLUSION

In nutshell it can be concluded that both anuvasan basti containing plain tila taila and tilataila with shatapushpa, saindhava are effective in the management Pakvashayagata vata. There is no significant difference in both anuvasan basti. This study needs further evaluation on large number of patient to finally conclude this statement.

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