

EVALUATION OF THE EFFICACY OF GRANTHOKT MATRA OF NIRUHA BASTI WITH REFERENCE TO KALBASTI KRAMA IN THE MANAGEMENT OF PAKVASHAYGATA VATVYADHI

Leena P. Hande¹, Pradip U. Jane², Amit R. Nampalliwar³

¹Ex.-PG (Sch.), Department of Panchakarma, R.A. Podar Ayurveda Medical College & Hospital, Worli, Mumbai-18, Maharashtra, India

²HOD & Guide, Department of Panchakarma, R.A. Podar Ayurveda Medical College & Hospital, Worli, Mumbai-18, Maharashtra, India

³Assistant Professor, Dept. of Roganidan & V.V., Smt. K.G. Mittal P. Ayurveda College & Hospital, Mumbai-02, Maharashtra, India

Email: leenah83@gmail.com

ABSTRACT

Symptoms of *Pakvashaygata vatvyadhi* are commonly found in many people due to changes in the food habits and lifestyle. *Basti* is the principle treatment of *vatvyadhi*. The quantity of *niruhabasti* given in nowadays is less than that of mentioned in *samhita granthas* i.e. 12 *prasrut* (960 ml), so research was carried out to evaluate the efficacy of *granthokt matra* of *niruha basti*. This research work includes total 30 patients of *pakvashaygata vatvyadhi* with minimum 4 symptoms of disease, selected from O.P.D. and I.P.D. of R.A. Podar Ayurved Hospital, Mumbai and they were given *kalbastikrama* with 960 ml of *niruha basti*, follow-up was taken for 24 days to study the effect of treatment on subjective and objective parameters. *Niruha basti* treatment with *granthokt matra* showed extremely significant relief in subjective parameters like *aantrakoojan*, *nabhishool*, *kruccrapurish*, *aanaha* and also improvement in objective parameters like SLR and abdominal girth by paired 't' test and extremely significant improvement in *dharan kaal* of *basti* by paired 't' test. It was observed that *granthokt matra* of *niruha basti* is effective in the management of *pakvashaygat vatvyadhi*.

Keywords: *Niruha basti*, *Granthokt matra*, *pakvashaygata vatvyadhi*, *Kalbasti karma*.

INTRODUCTION

In today's modern era, civilization and changes in the social life style are resulting in formation of many *vatvyadhies*. Mass population shifted from rural to civil areas and low calorie, less nutritional diet, *ruksha*, *sheet*, *pariyushit* diet consumption (excess *vada-paav*, bakery items), *ratrijagrana* due to work, malnutrition, other causes of *dhatukshaya* are

responsible for the formation of *vatavyadhies* in the body. Sitting in one position for longer time due to excess use of computers, excessive leaning and travelling for longer duration in standing position, *maladivegavidharana* and irregular food habits are responsible for *vata prakopa*.

In *Pakvashaygat vat*¹, there is *sthanik vikruti* in large and small intestines predominantly in large intestines, so in view of treatment *vatashamana* is expected. *Pakvashaya* is the main *sthana* of residence of *vata dosha*, hence in *pakvashaygat vat*, disease of *vata pradhanya*, *Basti* treatment is very important³. Nowadays, the *basti daan* methods have been modified in order to match the need of today's people. In that, the quantity of *niruha basti* given by many practitioners is less than that of mentioned in *samhita granthas* i.e. 12 *prasrut* (960 ml)¹, as they think that today's people can't hold the total *granthokt matra* of *niruha basti*. Even if we get positive results of less quantity of *niruha basti* that is mentioned in our *samhita granthas*, the quality and the quantity of results are neither constant nor equal among various patients. The classical *samyak yog* symptoms are hardly found in patients undergoing *basti* therapy. Hence, the present study was designed, to evaluate the efficacy of *granthokt matra* of *niruha basti* and help the patients to get 100% results of *basti karma*.

AIM AND OBJECTIVES

1. To study the efficacy of *granthokt matra* of *niruha basti* in the management of *pakvashaygat vatvyadhi* with reference to *kaalbasti krama*.
2. To study the standardization of *granthokt matra* of *niruha basti*.
3. To study along with symptoms of *pakvashaygat vat*, how other associated symptoms gets reduced with *niruha basti*.

MATERIALS AND METHODS

A clinical study on *pakvashaygat vatvyadhi* with *kaal basti krama* conducted to evaluate the efficacy of *granthokt matra* of *niruha basti* using subjective, objective parameters and *dharan kaal* of *basti*.

Ethical clearance:

This study was approved by ethics committee for human research of PG section, R.A. Podar Ayurved College, Worli, Mumbai. Patient confidentiality was

ensured at all times during the study. The protocol of this clinical study includes the study design, inclusion and exclusion criteria for clinical assessment as follows.

Study design:

Type of study : Randomized, open, uncontrolled, Prospective clinical study.

Selection : Random

No. of patients : 30

Criteria for selection of patients:

Inclusion criteria of patients –

- 1) Patients having min. 4 and max. all textual symptoms of *pakvashaygat vatvyadhi*².
- 2) Patients in whom *basti* is indicated.
- 3) Age group-20 to 70 yrs.
- 4) Sex- male and female.
- 5) Patients ready to give written informed consent.

Exclusion criteria of patients:

1. Age group-less than 20 and more than 70 years.
2. Patients of auto-immune disorders, neoplastic diseases & other diseases.
3. Patients having major illness for a longer period and systemic pathogenesis e.g. cardiac disease, CRF.
4. Pregnant females and lactating mothers.
5. Patients in whom *basti* is contra - indicated.
6. Patients with infectious diseases, Irritable Bowel Syndrome, Gastric ulcer, ulcerative colitis, Pulmonary & intestinal tuberculosis.

Consent:

Patient fulfilling criteria for selection were included under study after receiving their written consent.

Drugs for the study –

For *anuvasan basti* – *Til taila* 120ml with glycerine syringe and

For *niruha basti* – *Dashmool kwatha*, *madhu*, *saindhav*, *Til taila*, *dashamool kalka* with enema can was given.

For this study the quantity of *basti* ingredients were taken as

Follows -

- 1) *Madhu*- 60 ml
- 2) *Saindhav*-1karsh

3) *Tiltaila*-60 ml

4) *Dashmool Kalka*-40 ml

5) *Dashmool Kwatha*-800 ml

Means, according to *samuday matra*², *Madhu*-3/4 part, *Tiltaila*-3/4 part, *Dashmool kalka*-1/2 part and *Dashmool kwatha*-10 parts was taken for this study.

In this way, total quantity of *niruha basti* is slightly more than 960ml.

Preparation of *dashmool kwatha*⁴:

Dashmool kwatha for *basti* was prepared according to the standard textual methods.

100 gms of *dashmool bharad* was kept in 1600 ml luke warm water on the previous night. Next day morning this mixture was boiled till half of the previous quantity of water i.e.800ml remains. Then this *kwatha* was filtered with fine cloth and the *dashmool kwatha* was prepared.

***Niruha basti nirman*³:**

Firstly, *madhu* and *saindhav* was mixed in *khal* till formation of homogenous mixture of both. Then *Tiltaila* was added to the mixture, that results in homogeneity of mixture, after that this mixture was taken into another pot and *dashmool kalka* was added to the mixture which gets absorbed quickly in the mixture and finally *dashmool kwatha* was added to the mixture and stirred well till formation of homogenous mixture. Then this mixture was filtered with fine cloth. This lukewarm homogenous mixture of *kwatha* 960 ml was given to the patients with enema pot. *Basti* prepared by this method eliminates *kapha*, *vata* and *pitta* immediately from the *srotasas*.

Method of Administration:

1. *Dashmool niruha/Tiltaila anuvasan*
2. Dose -*niruha* 960 ml, *Tiltaila anuvasan* 120 ml
3. Kal-*niruha*-once a day, morning before breakfast
4. *Anuvasan*-once a day after lunch
5. Duration of therapy -16 day
6. No. of patients -30
7. Route of administration- per rectum.

Withdrawal from the study-

- 1) Discontinuation of treatment during trial.
- 2) Development of any complication at any point of time when treatment is continuing.

1) Subjective Assessment:

Gradations of symptoms of *Pakvashaygat Vat*²

I) *Aantrakoojan*:

0- *Aantrakoojan* absent

1- *Aantrakoojan* mild

2- *Aantrakoojan* moderate, not irritable for patient

3- *Aantrakoojan* severe, irritable for the patient

II) *Nabhishool*:

0-*Nabhishool* absent

1-*Nabhishool* mild

2-*Nabhishool* moderate but patient able to walk

3-*Nabhishool* severe and patient not able to walk

III) *Krucchramootra*

0-Normal *mutrapravrutti*

1-Mild pain during *mutrosarg*

2-Moderate but bearable pain during *mutrosarg*

3-Severe unbearable pain during *mutrosarg*

IV) *Krucchrapurish*

0-Normal evacuation of the rectum

1-Stool not passed easily requires pressure

2-Stool passed with the use of mild laxatives

3-For stool passing requires strong purgative

V) *Aanaha*

0-Absent

1-Feeling of bloating of abdomen

2-Distention can be clinically elicited but not affecting the routine activity

3-Distention can be clinically elicited & causing pain in abdomen & affecting routine activity

VI) *Trikvedana*

0-Absent

1-Mild pain

2-Moderate pain but not having pain during walking

3-Severe unbearable pain causing difficulty in walking.

2) Objective assessment:

SLR- tests of both legs and abdominal girth before and after treatment were taken for objective assessment.

3) Basti dharan kal:

Dharan kal of each basti that is niruha and anuvasan basti of all 30 patients with symptoms after basti pratyagam were noted down.

Plans of Statistical Analysis¹²

All the data gathered & collected during this study was subjected to statistical analysis to reach the final results and conclusions.

A] For objective parameters (quantitative data)-parametric test, paired ‘t’ test was applied.

B] For subjective parameters (qualitative data)-non parametric tests, Wilcoxon signed rank test was applied.

Significance of the results was studied at 5% level of significance.

OBSERVATIONS AND RESULTS:

Effect of treatment on parameters is shown in the table.

Table 1: Effect on subjective parameters of 30 patients of *Pakvashaygat Vat* by wilcoxon-matched-pairs test (signed rank test)

Symptoms		Mean	SD	SE of diff.	Sum of all sign rank W	No .of pairs N	P	Results
<i>Aantrakoojan</i>	BT	2.100	0.8030	0.1466	264	27	0.0009	Extremely significant
	AT	1.033	0.9643	0.1761				
	DIFF.	1.067	1.230	0.2245				
<i>Nabhishool</i>	BT	2.100	0.7120	0.1300	435	29	<0.0001	Extremely significant
	AT	0.6000	0.5632	0.1028				
	DIFF.	1.5000	0.5724	0.1045				
<i>Krucchramootra</i>	BT	1.733	0.9444	0.1724	190	29	0.0386	Significant
	AT	1.267	0.8277	0.1511				
	DIFF.	0.4667	1.042	0.1902				
<i>Krucchrapurish</i>	BT	2.1333	0.8604	0.1571	465	30	<0.0001	Extremely significant
	AT	0.7333	0.6397	0.1168				
	DIFF.	1.400	0.4983	0.09097				
<i>Aanaha</i>	BT	2.000	0.7878	0.1438	406	28	<0.0001	Extremely significant
	AT	0.7667	0.6261	0.1143				
	DIFF.	1.233	0.5683	0.1038				
<i>Trikvedana</i>	BT	2.233	0.5683	0.1038	243	26	0.0013	Very significant
	AT	1.633	0.7184	0.1312				
	DIFF.	0.6000	0.7240	0.1322				

Table 2: Showing effect on objective parameters of 30 patients of *Pakvashaygat Vat* by Paired ‘t’ test

Sr.no	Objective parameters	Mean	SD	SE of diff.	t	P	Results	
1	SLR test	BT	79.333	8.483	1.549	2.276	0.0304	Significant
	RT leg	AT	82.667	6.661	1.216			
		DIFF.	-3.333	8.023	1.465			
	SLR test	BT	82.000	5.663	1.034	2.443	0.0209	Significant
	LT leg	AT	84.667	6.008	1.097			
		DIFF.	-2.667	5.979	1.092			
2	Abdominal	BT	89.317	11.323	2.067	2.905	0.0070	Very Significant

girth	AT	88.217	10.896	1.989			
	DIFF.	1.100	2.074	0.3786			

Table 3: Showing effect on *dharan kal* of *niruha basti* of 30 patients of *Pakvashaygat Vat* by paired ‘t’ test

Dharan kal of niruha basti	Mean	SD	SE of diff.	t	P	Results
BT	5.733	3.796	0.6930	13.090	<0.0001	Extremely significant
AT	21.100	8.269	1.510			
DIFF.	-15.367	6.430	1.174			

DISCUSSION

Pakvashaygat vat is commonly found disease nowadays, in almost all the chronic diseases symptoms of *pakvashaygat vat* are found in initial stage. The symptoms *aantrakoojan*, *Aanaha*, *krucchrapurish* are found abundantly in many people nowadays due to irregular food habits and excess intake of *paav* and other bakery items, *ratrijagaran*, *diwaswaap*, prolonged work on computer in one position.

ENS-CNS interactions:

The gastrointestinal tract communicates with the CNS in two ways. Afferent neurones convey signal of consciousness, including pain, discomfort, feeling of hunger and satiety. CNS provides signals to control the intestine through efferent neurones, which are, in most cases relayed through the ENS.

ENS modifies all the CNS functions¹¹ *Basti* can control the total *vayu* located all over the body by controlling the *vayu* phenomenon in *Pakvashaya*.

Basti may control the entire system by means of regulating the ENS.

Absorption of basti⁹:

In allopathic science of medicine, rectal Trans mucosal route is used for systemic effects. Rectal administration provides rapid absorption of many drugs and is painless.¹⁰

Niruha basti reaches the illeo-caecal junction then returns back to be eliminated. Drugs are absorbed between rectum and illeo-caecal junction.¹⁰

Volume of the *basti* fluid is an important factor for absorption and effect. The volume mostly controls the retention of *basti* inside the lumen. The standard dose of *niruha* according to the age is scheduled for the elimination of the morbid materials from the *ko-*

shtha and repetition of such procedure definitely indicates its cleansing property on the colon.

The *sneha* used in *basti* lowers the colonic pH which protects the colonic mucosal layer from formation of polyps, inhibits inflammation and increases mineral absorption and also influences the immune function of the body. The *niruha* therapy along with its therapeutic effects shows cleansing effect on the colon. Cleansing of the colon could dilute the toxin concentration in the caecum and facilitate the removal of the toxin. *Niruha* dilutes the bacterial toxin concentration in the large intestines. It reduces stagnation and subsequent bacterial proliferation in the large intestine and maintains harmony of the intestinal flora in promoting optimal colon health.⁶ The therapeutic effect is improved muscle tone, which facilitates peristaltic action and enhances the absorption of nutrients from the caecum and ascending colon while minimising the absorption of toxic waste materials. It may enhance the immune system. The *niruha* by its cleansing action minimizes the toxin load in the large intestine resulting in the reduced burden on the liver, allowing the eliminative organs to function optimally. It also prevents the stagnation and minimizes the exposure of carcinogenic agents to the colonic wall.

Dharan kal of basti:

It was observed that, *dharan kal* of *niruha* on first day of *niruha* was min 2 to 5 minutes maximum upto 15 minutes in patients, except 5 patients in whom *basti pratyagam* was immediate. Gradually, *dharan kal* of *niruha basti* was increased in every *niruha basti* maximum upto 35 minutes on last

niruha basti. And, also in those 5 patients *dharan kal* of *basti* was increased upto 5 to 10 minutes on last *niruha basti*. So, first thing can be decided that today's people can hold the *granthokt matra* of *niruha basti* without any discomfort. This *granthokt matra* of *niruha* can be held upto 35 to 40 minutes without any complaints by patients, so fair time is available for action of *basti dravyas* i.e. initially for cleansing of the colon and later on gradually, action on intestinal muscles, intestinal flora and subsequently prevention of bacterial proliferation

This indicates that *doshprapok (vatprakop)* was severe on first day of *niruha*, hence *basti pratyagam kal* was earlier, later on as days passed on *doshprakop (vataprakop)* severity gradually decreases and *dharan kal* of *niruha basti* gradually increases. Since *basti* is held for longer time it enhances the function of normal gut flora, increases absorption of vitamins and increases immunity of the body. *Apan vayu vikruti* comes to normal indirectly *saman vayu* and *pachak pitta* functions normally and digestive capacity of patient increases. It was observed that *dharan kal* of *anuvasan* on first day of *anuvasan* was min 10 minutes upto 4 hours in patients which increased upto maximum 12 to 14 hours on last day of *anuvasan*, it indicates that *vataprakop* caused by *niruha* gradually decreases till last *anuvasan basti*. And maximum time is available for *sneha* for *vatshaman* and *sharirbruhan*.

Statistical analysis of *dharan kal* of *niruha basti* of 30 patients of *pakvashaygat vat* before and after treatment by paired 't' test showed statistically extremely significant results, 'p' value was <0.0001.

CONCLUSION

There was significant improvement in symptoms in study group before and after the therapy. Overall percentage of relief was 50.55 %, which was significant. This shows, this study is effective in reducing the severity of symptoms of *pakvashaygat vat*. Effect of therapy on objective parameters shows significant changes in SLR tests of both legs and very significant changes in abdominal girth of study

group, before and after therapy. So it can be concluded that *basti* acts effectively for the objective parameters and indirectly reduces the severity of signs of *pakvashaygat vat*.

Effect of therapy on *dharan kal* of *niruha basti* shows extremely significant changes in study group, before and after therapy. So it can be concluded that *basti* therapy definitely had increased *dharan kal* of *niruha basti*.

It is concluded that *granthokt matra* of *niruha basti* is effective in reducing the severity of symptoms and signs of *pakvashaygat vatvyadhi*. *Dharan kal* of *niruha basti* increased gradually upto last *niruha basti*. So it can be concluded that, initially *doshprakop* is more that gradually decreases till last *niruha basti*. Hence, severity of symptoms decreases. Also, *vatprakop* too decreases gradually till last *basti*.

Also, increase in digestive capacity, feeling of lightness in the body, increase in appetite, feeling of freshness in the body, decrease in the abdominal girth, feeling of healthiness in the body, decrease in joints pain and indirectly improvement in the mental health these results found in patients during the treatment. So, it can be concluded that *granthokt matra* of *niruha* is not only effective in decreasing the severity of symptoms of the *pakvashaygat vat* but also effective in decreasing other diseases and maintaining physical and mental health.

Acknowledgement

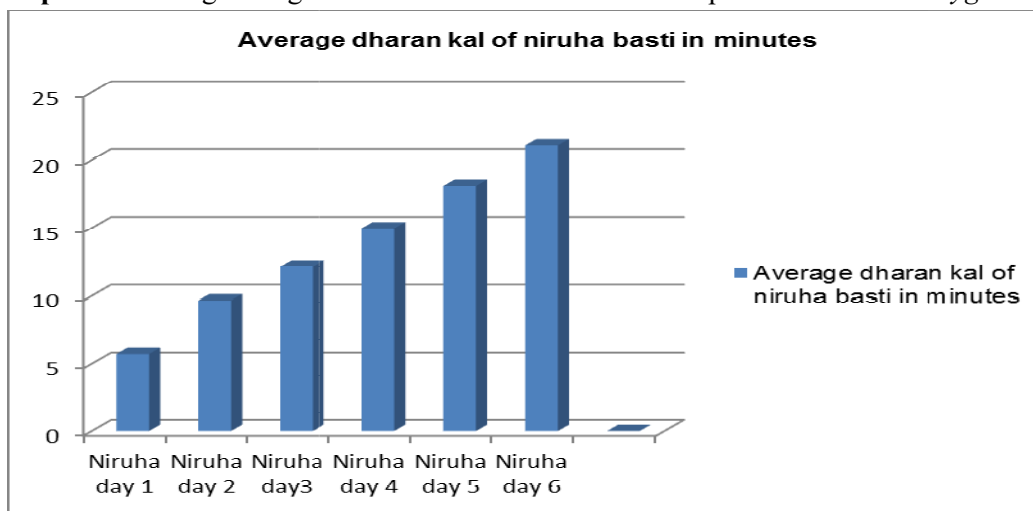
The author is very much thankful to H.O.D.& Guide, Panchkarma department, R. A. Podar Ayurved Mahavidyalaya, Mumbai to provide all the facilities for this work. I am very much thankful to the hospital staffs, laboratory staffs & the patients of OPD & IPD, R.A. Podar Ayurvedic Hospital Mumbai for their co-operation during study.

REFERENCES

1. **Charak Samhitaa**,with hindi commentary 'Vaidya manorama' by Acharya Vidyadhar Shukla and Prof. Ravi Dutt Tripathi, 2nd edition 2000,Chaukhamba Sanskrit Pratishthan, Delhi 110007.

2. **Sushrut samhita** with sushrutavimarshini hindi commentary by Dr. Anant Ram Sharma, 1st edition 2001, chaukhamba surbharati prakashan Varanasi 221001.
3. **Ashtang Hrudaya** with vidyotini commentary by kavi-raj atridev gupta edited by vaidya yadunandan Upadhyaya, 4th edition 2003, chaukhamba Sanskrit Sansthan, Varanasi- 221001.
4. **Sharangdhar Samhita** with dipika hindi commentary by Brahmanand Tripathi, reprint edition 2001, Chaukhamba Surbharati prakashan, Varanasi 221001.
5. **Ashtanga sangraha** of shrimada vagbhata, by Brahmanand Tripathi, reprint edition 2003, Chaukhamba Surbharati prakashan, Varanasi 221001,.
6. Priyavatt Sharma, **Dravya guna Vidnyan**, part II, Edition 2007 chaukhambha Bharati Academy, Varanasi 221001.
7. **Ayurved panchkarma vigyana** by Vd. Haridas Kasture, reprint 2007 edition, Shri Baidyanath Ayurved Bhavan, Great Naag Road, Nagpur -9.
8. **Ayurvediya Panchkarma chikitsa** by Dr Mukundilal Dwivedi, reprint 2012, Chaukhamba Surbharati prakashan, Varanasi 221001.
9. **Mechanism of panchkarma and its module of investigation** by Dr. Pulak Kanti Kar, 1st Edition 2013, Delhi 110007.
10. **Grays anatomy**, edited by Roger Warwick and Peter Williams, 34th edition 1967, Longman, Edinburgh, EH4TL,
11. **Guyton and Hall, Textbook of Medical Physiology**, 11th edition 2007, Saunders, Philadelphia pennsylvania 19103 - 2899,
12. **B.K. Mahajan, Methods in Bio statistics**, reprint edition 2006, Jaypee brothers, Daryaganj New Delhi 110002, India,.

Graph 1: Showing average *dharan kal* of niruha basti of 30 patients of Pakvashaygat Vat:



Source of Support: Nil

Conflict Of Interest: None Declared

How to cite this URL: Leena P. Hande et al: Evaluation of The Efficacy of Granthokt Matra of Niruha Basti With Reference To Kalbasti Krama In The Management of Pakvashaygata Vatvyadhi. International Ayurvedic Medical Journal {online} 2018 {cited March, 2018} Available from: http://www.iamj.in/posts/images/upload/601_607.pdf