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# A Comparative Clinical Study on Traditional and Contemporary *Basti Daan Vidhi* with special reference to *Janu Sandhigata Vata*

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## ABSTRACT

*Panchakarma* being *Ayurvedic* treatment modalities gaining top rank in the treatment priority list of the patients now a day. As a result, almost every *Ayurvedic* physician desires to attract patients by providing various *Panchakarma* therapies. A *Panchakarma* treatment requires concise precision but is being modified to suit a contemporary lifestyle. *Basti chikitsa* is the most widely among *Panchakarma* and the most common degenerative disease-*Janusandhigata vata* in which *basti* is the most promising treatment was selected for the study. A randomized open single blind controlled prospective clinical trial was undertaken on 60 patients suffering from *Janusandhigat vata* to compare the traditional and recent methods of *basti daan vidhi* (drug delivery) and also to treat *Sandhigat vata*, *Erandamool niruha* and *Tila taila anuvasan* was used in *yog basti* manual. The patients were divided into 2 groups of 30 each. To group A (study group) *basti* was given by the traditional method and group B (control group) *basti* given by recent method. Clinical facts obtained from the study were analyzed with appropriate statistical methods. The present study provides strong pieces of evidence that prove the effectiveness of the traditional method of *basti daan* over the recent methods in several aspects.

**Key Words** *Basti daan vidhi, Traditional method, Recent method*

## INTRODUCTION

*Panchakarma* therapy has been used on a larger scale now a days due to increased literacy rate, consciousness about health and fitness, side effects of other medical pathies, cognizance about *Ayurved* and growing marketing of *panchakarma* therapy, people readily opt for several *Ayurvedic* treatment modalities-mainly *PANCHAKARMA*. As an outcome of this almost every *Ayurvedic*

physician wishes to attract patients by providing numerous *panchakarma* therapies.

The extensively used and simplest procedure among *panchakarma* is the *Basti chikitsa*. It was described in detail in the classical texts like *Charak* and *Shushrut Samhita* with an elaborate description of indications, contraindications, and instruments used, *basti daata dosha*, *basti netra dosha*<sup>1</sup>, *basti putak dosha*, side effects, and etc.



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*Basti daan vidhi* was developed by considering the detailed anatomy and physiology of the human body<sup>2</sup>, contents of *basti dravya*, benefits required, relief required from certain diseases etc.

But nowadays, everything including the *panchakarma* therapies are reformed to suit today's contemporary lifestyle. So, the *basti daan vidhi* has also been modified to match the requirements of today's people. *Basti* is administrated using syringe catheter or pot method because of the portability of these instruments and lack of skilled persons. Even if we achieve positive results through these methods, the qualities of results achieved every time are not as per the textual standards. This is the need for time to find out the incongruities in *basti vidhi* and also find the beneficial methods of *basti daan vidhi*. For this comparative study, the most commonly found disease-*janusandhigata vata* was selected. Faulty dietetic routines and unbalanced lifestyle is responsible for early degenerative changes in bodily tissue and play a vital role in the manifestation of such degenerative condition. The trouble in the joint by vitiated *vata* is the main phenomenon in *samprapti* of *sandhigata vata*. *Acharya Charak* highlights the glorified designation of *basti* as a promising treatment in *vatapradhan* diseases<sup>3</sup>. Therefore, in order to compare the effectiveness of the various *basti daan* methods and also treat the patients of *janu sandhigata vata*, *Erاندamool niruha* and *Tila taila anuvasan* was used in *yog basti* manual. *Erاندamool* and *tila taila* pacifies *vata dosha* very effectively<sup>4</sup>; these drugs were selected for the

study. A randomized control clinical study was undertaken on 60 patients suffering from *janusandhigata vata* to compare the traditional and recent methods of *basti daan vidhi*.

## AIMS AND OBJECTIVES

1. To study efficacy of *basti* in *janu sandhigata vata*.
2. To compare the differences in *basti daan* methods and their results.
3. To study *samyak yog, ayog, atiyog lakshana* of *basti* in both methods.

## MATERIALS AND METHODS

**A. Patients-** 60 patients were identified clinically on the basis of symptoms of *sandhigata vata* as described in *Ayurvedic texts*<sup>5</sup>. Patients were randomly divided in two groups.

Group A (Study group): 30 patients-Basti was given by traditional method for 8days.

Group B (Control group): 30patients-Basti was given by recent method for 8days.

### *Inclusion criteria-*

1. Patients between the age group of 20 to 70 Years of both sexes, irrespective of religion, occupation, and socio-economic status were selected.
2. Patients representing the clinical symptoms of “*janu sandhigata vata*”, *sandhi shoola* (knee joint pain), *sandhi shotha* (oedema), *atopa*, *sandhi graha* (restricted movement).
3. Patient ready to give written consent.

### *Exclusion criteria-*



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1. Patients below the age of 20 and above 70 years.
2. Patients with other joints deformities or diseases which are not related to *janu sandhigata vata*, such as *amavata*, *vatarakta*, fracture of knee joint, and needs surgical care were excluded.
3. Known cases of Auto immune diseases –like SLE, ankylosing spondylitis, and neoplasm were excluded.

### B. Drugs-

For *Anuvasan Basti*- *Tila taila* was used for *anuvasan basti*.

For *Niruha Basti* -*Erandamool kwath* was prepared as per classical reference<sup>6</sup>. All ingredients were mixed one by one to form emulsion<sup>7</sup>. Ingredients of *niruha basti* were enlisted in Table no.1.

**Table 1** Ingredients of *Niruha basti*

Sr.No.	Name of Ingredient	Classical Quantity	Actual Quantity
1	<i>Saindhav</i> / rock salt	1 <i>Aksha</i>	10gm
2	<i>Madhu</i> /Honey	2 <i>prasrut</i>	160ml
3	<i>Til Tail</i> / Sesame oil	3 <i>prasrut</i>	240ml
4	<i>Yavanyadi kalka</i>	1 <i>prasrut</i>	80gm
5	<i>Erandmool Kwath</i>	4 <i>prasrut</i>	320ml
6	<i>Prakshep</i>	2 <i>prasrut</i>	160ml

*Dose: Yoga basti krama*<sup>8</sup> (Total 8 Basti)  
Five *anuvasan basti* ( 1<sup>st</sup>,3<sup>rd</sup>,5<sup>th</sup>,7<sup>th</sup> and 8<sup>th</sup> day) -  
120ml *basti dravya* every time  
Three *niruha basti* (2<sup>nd</sup>,4<sup>th</sup>,6<sup>th</sup> day) -960 ml *basti dravya* each time.

*Kaal:*

*Niruha*- Once in a day, before food.

*Anuvasan* – Once in a day, after food.

### C. Basti-karma (procedure):

*Purvakarma* and *paschat karma* was done as per text in traditional and recent methods<sup>9</sup>.

*Pradhān karma* of process of giving *basti*:

#### a. Traditional method-

Luke warm *anuvasan basti dravya* / *niruha basti dravya* mixture was loaded in a polythene bag which is used as *basti putak*.

The disposable plastic *basti netra* was tied to the bag using thread.

Then the column of *basti netra* was filled completely with *kwath /oil*.

Oil was applied to the anal opening and *basti netra* tip.

The patient was asked to take left lateral position and deep inspiration as this helps to relax the anal opening which facilitates the entry of *basti netra* in the anal canal/rectum.

Then the polythene bag was held in the left hand and pressed slowly with constant pressure by the right hand till all the *basti dravya* except a few ml entered the *pakvasaya*.

*Basti netra* was removed slowly and the patient was asked to remain in the same position for 30 seconds.

#### b. Recent method-

Lukewarm *anuvasan basti dravya* / *niruha basti dravya* mixture was loaded in glycerin syringe. A rubber catheter was attached to it.

Air filled rubber catheter was evacuated by filling it with *bastridrava*.

Oil was applied to anal opening and catheter tip.



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The patient was asked to take left lateral position and deep inspiration as this helps to relax the anal opening which facilitates the entry of the catheter in the anal canal/rectum.

*Basti dravya* was allowed to enter *pakvashaya* by gravity.

**D. Follow up:-**8<sup>th</sup>,15<sup>th</sup>, and 29<sup>th</sup> day.

### E. Criteria of assessment

#### I) *Basti vidhi* assessment:

**Table 2** *Samyakyog , Ayog, Atiyog lakshana*

<i>Samyak Yog Lakshan</i>	<i>Ayog lakshaan</i>	<i>Atiyog lakshan</i>
<i>Prasrushtavinmutra samiranatwa</i>	<i>Shir-hruday-guda-basti ruja</i>	<i>Vata pitta kapha rakta kshayaj vikar</i>
<i>Ruchi vruddhi</i>	<i>Shopha</i>	<i>Supti</i>
<i>Agni vruddhi</i>	<i>Pratishyay</i>	<i>Unmad</i>
<i>Ashay laghav</i>	<i>Vikartika</i>	<i>Hikka</i>
<i>Rogopshanti</i>	<i>Hrullas</i>	----
<i>Bal vruddhi</i>	<i>Marutmutrasanga</i>	-----

#### II) *Criteria for assessment of clinical result*–

The efficacy of treatment was assessed on the basis of Subjective parameters before & after

*Basti vidhi* assessment was done according to classical explanations of *samyaka yoga, ayoga, atiyog lakshana* explained in Table no.2, and *dharan kaal* of *basti*. The number of *lakshanas* observed was noted in each group and the average was compared. The time period of retention of *basti* in minutes was noted in each group and compared.

treatment. Criteria for the assessment of *sandhi shoth, atop* and *sandhigraha* were explained in Table no.3.

**Table 3** *Criteria for assessment of clinical symptoms.*

Symptom	Grade 0	Grade I	Grade II	Grade III	Grade IV
<i>Sandhishoola/Pain</i>	No Pain	Mild pain	Moderate pain	Severe pain	Extreme pain
<i>Atopa / Crepitus</i>	No Crepitus	Palpable Crepitus	Audible Crepitus while palpation	Always audible	-----
<i>Sandhi Graha / Stiffness</i>	No stiffness	Mild stiffness	Moderate stiffness	Severe stiffness	Severe stiffness more than 10 mins.

#### Assessment of *shotha* (swelling):

Knee joint *shotha* measured at three levels in centimeter.

Level A – 2 inches (5.08 cm) above mid patellar point

Level B - At a mid-patellar point

Level C – 2 inches (5.08 cm) below the mid patellar point

All measurements were taken. The mean calculated & effects of a trial are calculated in

terms of the difference between the *shotha* before and after treatment.

#### III) *Criteria for assessment of the overall result*

##### Visual Analogue Scale (VAS):

There was a 10 cm long scale for assessment of overall relief- ‘0’ marking on the left side indicates complete relief & ‘10’ marking on the right side indicates the severe condition. Patients were asked to grade their severity of disease & mark accordingly. Then it was measured by the scale.



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The percentage of relief was calculated and recorded.

#### IV) Statistical Analysis:

As the present study is randomized and controlled with paired data of independent observations from both the samples, the paired 't' test was applied for statistical analysis of subjective parameters. Whereas an unpaired 't' test was applied to study *dhaaran kaal* (retention time of *basti*) in both methods.

1) All 60 patients included in the study were examined clinically for age, sex, *prakruti*, and knee involvement in disease. Observations documented were enlisted in table no.4

2) *Basti samyaka yog, ayoga* and *atiyoga lakshan* observed in both group, comparative statistical findings were enlisted in table no.5. It was found that 70.06% *samyak yog lakshana* were found in the study group whereas 49.1% were found in the control group i.e. *samyak yog* is more profoundly seen in Group A.

### OBSERVATION AND RESULTS

**Table 4** Age, sex, *prakruti* and knee involvement percentage in patients of *Janusaandhigat vata*.

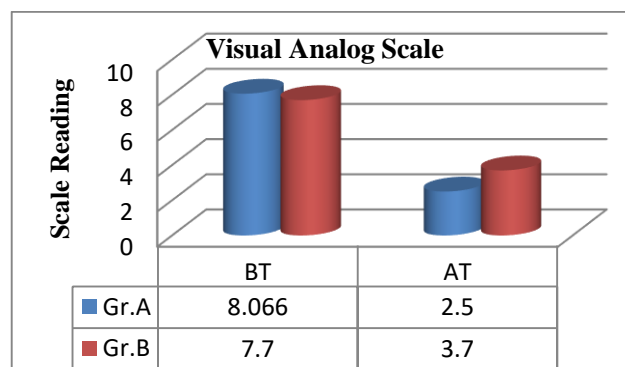
Age	Sex	Prakruti	Knee involvement
21 to 30yrs- 6(10%)	Male - 19 (31.67%)	Vat pittaj - 28 (46.67%)	Right knee - 29 ( 8.33%)
31 to 40yrs- 15(25%)	Female- 41 (68.33%)	Vaat kaphaj – 10 (16.66)	Left knee - 13 21.67%)
41 to 50yrs- 15(25%)		Pitta vataj - 4 (6.67%)	Both Knees - 18 (30%).
51 to 60 yrs- 15(25%)		Pitta kaphaj – 7 (11.67%)	
61 to 70 yrs—9 (15%)		Kapha vataj – 2 (3.33%)	
		Kapha pittaj – 9 (15%)	

**Table 5** Comparative analysis of *Samyakyog, ayoga* and *Atiyog*

	Samyak yog lakshana		Ayog lakshana		Atiyog lakshana	
	Group A	Group B	Group A	Group B	Group A	Group B
Mean	5.605	3.928	0.024	0.404	0.0	0.020
S.D.	1.911	1.668	0.034	0.048	0.0	0.017
S.E.	0.675	0.589	0.012	0.017	0.0	0.006
t value	12.578		17.504		3.416	
P value	<0.0001		<0.0001		<0.0112	
Remark	Significant		Significant		Significant	

The occurrence of *ayog lakshana* was 0.21% in the study group whereas it was 3.67% in the control group. *Atiyog lakshana* was absolutely not found in the study group whereas it was 0.28% in the control group

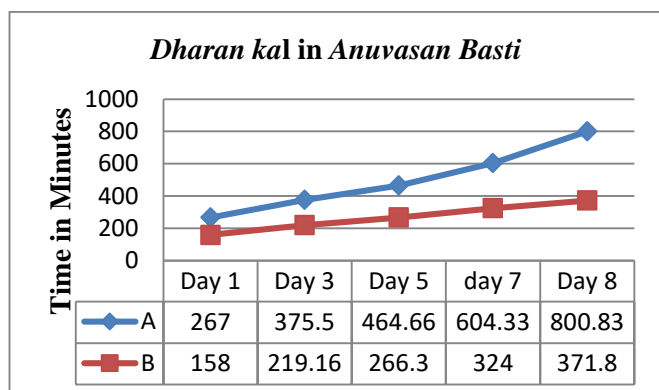
3) Comparison between *basti dravya dharan kaal* (Retention time) recorded in minutes was as graph no.2 and 3.



**Graph. 1** Comparison of Overall result in both groups by VAS



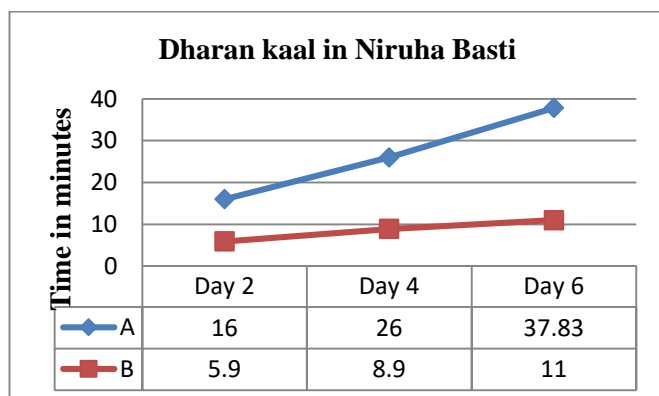
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Graph 2 Comparison of Anuvasan Basti dharan kaal between both groups

Table 6 Comparative analysis of Relief percentage of symptoms.

No.	Symptoms	Mean of Reduction		Percentage of Relief	
		Group A	Group B	Group A	Group B
1	Shoola	1.6	1.183	64%	47.01%
2	Shotha	0.181	0.08	0.58%	00.25%
3	Atopa	0.75	0.633	59.24%	58.44%
4	Graha	0.85	0.71	51.02%	42.18%
5	Visual Analog Scale	5.566	4	69%	51.94%



Graph. 3 Comparison of Niruha Basti dharan kaal between both groups

DISCUSSION

- 1) 75% of patients were between the age group of 31-60 yrs which clearly correlates with *madhyam vaya* of *hani* stage.
- 2) 38 Patients having *vata pittaja* and *vata kaphaj prakruti* indicates *vata* dominant patients in *dwandwaja prakruti*, suffer more from *janu sandhigata vata* & prognosis may be poor in them as *prakruti* and *dosha* involvement is the same.

- 4) Symptom wise improvement was seen in both groups, relatively more in group A than group B. More than 50% relief was seen in *shool*, *atop* and *graha*. Details noted as per table no.6.
- 5) Overall significant improvement in disease was seen by Visual Analog Scale, 69% and 51.9 % respectively in group A and B. as per graph no.1.

- 3) 40 patients were having irregular bowel habit or constipation. This can be considered as a factor that obstructs the *prakrita gati* of *apana vayu*.
- 4) Maximum number of patients having *janu sandhigata vata* of both knees 38 (63.33%) Hence it can be said that most commonly both knees are affected in *sandhigata vata*.
- 5) The proper absorption of the *basti dravya* depends upon *dhahran kala* i.e. retention time of the *basti dravya*. Retention of the *basti* was found significantly higher in group A. The probable reason for the higher retention time in group A may be the mechanisms of pushing and squeezing the *bastidravya* at once and with pressure, which leads the *bastidravya* directly into the deeper area of the *pakvashaya* where it stays for long time.
- 6) Increased retention time helps in proper absorption leading to increased efficacy of the





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drug and thus increased relief in symptoms in Group A than Group B.

## CONCLUSION

The *tila taila anuvasana* and *erandmool kwath niruha yog basti krama* in *janu sandhigata vata* was statistically highly significant.

The *dhaaran kaal* of *niruha basti* in the study group was 3.09 times greater than that in the control group whereas that of *anuvasana basti* was 1.87 i.e. approximately twice than that of control group. This shows that the *dhaaran kaal* (retention time) of *basti* is greater if we use the traditional method of *basti daan*.

The traditional method of *basti daan vidhi* increases the efficacy of the medicine used and also achieve a better prognosis.

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