



## Research Article

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### MANAGEMENT OF MALAVASTAMBHA WITH CHATUHA PRASRUTIKA BASTI AND TILA TAILA BASTI: A COMPARATIVE STUDY

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#### ABSTRACT

Malavastambha is a disease which occurs due to Vikruti of Vayu (Pratilom Viguna of Apan Vayu) and Purishavaha Srotasa Dusti. Malavastambha is a social problem in metropolis. In average residential apartment's number of family members are more than toilets available which keep most of them waiting in the morning, so it leads to Vega Vidharana and causes Malavastambha. Increased stress seen in modern society is the cause of irritable Bowel Syndrome (IBS). IBS is characterized by abdominal pain and altered bowel habits including diarrhea, constipation or alternating diarrhea and constipation. The aim of this study is management of Malavastambha with Chatuha Prasrutika Basti and Tila Taila Basti – A comparative study. Total 60 patients were selected, and divided randomly into two groups as experimental group and control group. Observations noted and results of both group compared, statistically analysis was done by using z test (p value > 0.05). The statistical analysis revealed that there were statistically significant improvements in parameters like hard stool, excessive staring, incomplete evacuation, lower abdomen fullness, and the improvement remained same after the follow up period by Chatuha Prasrutika Basti.

**Keywords:** Malavastambha, Chatuha Prasrutika Basti, constipation, Tila Taila Basti

#### INTRODUCTION

Malavastambha is a social problem in metropolis. In average residential apartment's number of family members are more than toilets available which keep most of them waiting in the morning, so it leads to Vegavidharana and causes Malavastambha. Increased stress seen in modern society is the cause of irritable Bowel Syndrome (IBS). IBS is characterized by abdominal pain and altered bowel habits including diarrhea, constipation or alternating diarrhea and constipation. Malavastambha is a disease which occurs due to Vikruti of Vayu (Pratilom Viguna of Apan Vayu) and Purishavaha Srotasa Dusti.<sup>1</sup> Acharya Charaka mentioned 'Malavastambha' in terms of 'Vibandha', 'Bandha' etc. and Malavastambha as a disease has not been mentioned in any Samhitas. The symptoms of Malavastambha are likely to be the symptoms of constipation from modern science. Constipation means different things to different people, for many people it simply means infrequent stools. For others however constipation means hard stools, difficulty passing stools (straining) or sense of incomplete evacuation. According to Ayurveda if stool not passed once in 24 hours then it is called constipation. Basti is a therapeutic procedure which appears quite simple in its application however its effects are powerful and effective. Medication given by Basti primarily treats Vata dosha which is the main factor in the manifestation of Malavastambha. Basti to be considered as a half or full of all the treatment modality of Ayurveda.<sup>2</sup> Here we are using Chatuha Prasrutika Basti specially indicated for Malavastambha. The reason is that Acharya Charak has mentioned in chapter 8 in Siddhi Sthana about this Basti. 12 Prasruti niruha Basti is indicated for the age group 18-70 years. 12 Prasruta is Uttama matra. But this matra is not suitable for 'Sukumar' (Balaka, Vridha, Yuvati, Garbhini etc.) and those who are

tired of daily routine, Mridu Basti which is not Tikshhna and which do Snehana, Prasrutikayogiki Niruha Basti is recommended.<sup>3</sup> (One Prasruta = 8 Tola = 80 ml, 4 prasruta = 320 ml.) All ingredients of Chatuha Prasrutika Basti possesses the properties like Vata-nasaka, Kapha-nasaka, Malabhedaka, Malanulomaka, Sroto-shodhaka and Agni-dipaka, Prinana, so these medicines can easily check Samprapti of Malavastambha.<sup>4</sup>

#### Aim and Objectives

- Management of Malavastambha with Chatuha Prasrutika Basti and Tila Taila Basti – A comparative study.
- To study Malavastambha as a symptoms and sign in Ayurvedic Samhitas and modern literature.

#### MATERIALS AND METHODS

##### Study Design

Clinical prospective experimental comparative single blind study - Entire study is based on clinical findings and patient's narration. Total 60 patients were selected, and divided randomly into two groups as experimental group and control group.

##### Experimental group

The patients were treated with Chatuha Prasrutika Basti (3 cycle of 3 basti) and observations noted.

##### Control group

The patients were treated with Tila Taila Basti (3 cycle of 3 Basti) and observation noted.

- Initial assessment and 1<sup>st</sup> intervention (1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup> day, and then 6 days Parihara kala)
- 1<sup>st</sup> follow up and 2<sup>nd</sup> intervention (10<sup>th</sup>, 11<sup>th</sup>, 12<sup>th</sup> day and then 6 days Parihara kala)

- 2<sup>nd</sup> follow up and 3<sup>rd</sup> intervention (19<sup>th</sup>, 20<sup>th</sup>, 21<sup>st</sup> day and then 6 days Parihara kala)
- Final assessment on 28<sup>th</sup> day.
- Follow up after final assessment on 30th day and 60<sup>th</sup> day.
- Statistical Analysis was done by using 'z' test.

### Preparation of Chatuha Prasrutika Basti

#### Ingredients

Tila Taila: 1 Prasrutika  
 Gomutra: 1 Prasrutika  
 Dadhi manda: 1 Prasrutika  
 Amla kanjika: 1 Prasrutika  
 Sarshap Kalka: 1 Tola (4 Prasrutika = 320 ml)  
 Mix all ingredients with Sarshap kalka.<sup>5</sup>

#### Materials required

##### For Experimental Group

The freshly prepared Chatuha Prasrutika Niruha Basti, Tila Taila for local application. Enema pot: used for easy administration of Chatuha Prasrutika Niruha Basti. Catheter: No. 10 size catheter was used.

##### For Control Group

Tila Taila, Enema syringe: 100 ml of syringe was used for easy administration of Taila. Catheter: No. 10 size catheter was used.

### Standard Operative Procedure for Basti (Niruha and Anuvasana)

#### Purva karma

NBM (Nil by mouth) at least 3 hour before administration of Niruha Basti, light food should be taken before Anuvasana Basti. Local external oleation (umbilicus, lower abdomen, thigh and low back); Vaska sweda 5- 10 minutes on above mentioned areas

#### Pradhana karma

Ask the patient to lie down in left lateral position. Anoint the anus and catheter by oil. Administer 320 ml of Chatuha Prasrutika Niruha Basti with the help of enema pot and simple rubber catheter No10. Also 320 ml Anuvasana (Tila Taila) with same, and 120 ml, 60 ml with help of steel syringe and simple rubber catheter No10. Tapping over buttock, patient remained lying same position (left lateral) for ½ minute. After that ask the patient to take up knee chest position. Observe for samyakasamyak, Atiyoga lakshana.

#### Paschata karma

Observe for Basti pratyagma and Vyapada lakshana. Then follow Pathyapathya and Parihara kala.<sup>6</sup>

#### Inclusion criteria

- Patient having Malavastambha, and sign and symptoms of constipation according to modern science. (Hard stool, Excessive straining, Incomplete evacuation, lower abdomen fullness, gas)
- Age group: between 8 to 70 years of both sexes.
- Basti arha according to various Samhita.<sup>7,8</sup>

#### Exclusion criteria

- Age below from 8 years and above 70 years
- Niruha basti and Anuvasana basti Ayogya according various samhitas.<sup>9-11</sup>
- Individuals suffering from any other systemic disease were also excluded.

#### Investigation

- Stool routine before and after treatment if necessary
- Physical Examination :-
  - a. Per Abdomen for prior surgery, Bowel distention, retained stool.
  - b. Perineal and anorectal examination for deformity, gluteal muscle atrophy, rectal prolapse, anal stenosis, anal fissure, rectal mass or fecal impaction, rectocele or rectal prolapse.
  - c. A normal anal wink may be elected by demonstrating reflex contraction of the anal canal following pinprick of the perineum.
- X-Ray:- In case of intestinal obstruction fluid level was seen.

#### Assessment criteria

Considering the symptoms of constipation as given in modern science the assessments were made. Full detailed history and physical examination of the patients was recorded into specially prepared proforma for Malavastambha.

Table 1: Gradations for Parameters

Hard stool	
Grade	Type of stool
0	4
1	3
2	2
3	1
Excessive straining	
Grade	Time
0	0 – 5 minutes
1	6- 10 minutes
2	11 – 15 minutes
3	16-20 minutes
Sense of incomplete evacuation	
Grade	Symptoms
0	No
1	Mild
2	Moderate
3	Severe
Lower abdomen fullness	
Grade	Symptoms
0	No
1	Mild
2	Moderate
3	Severe
Gas	
Grade	Symptoms
0	No
1	Mild
2	Moderate
3	Severe

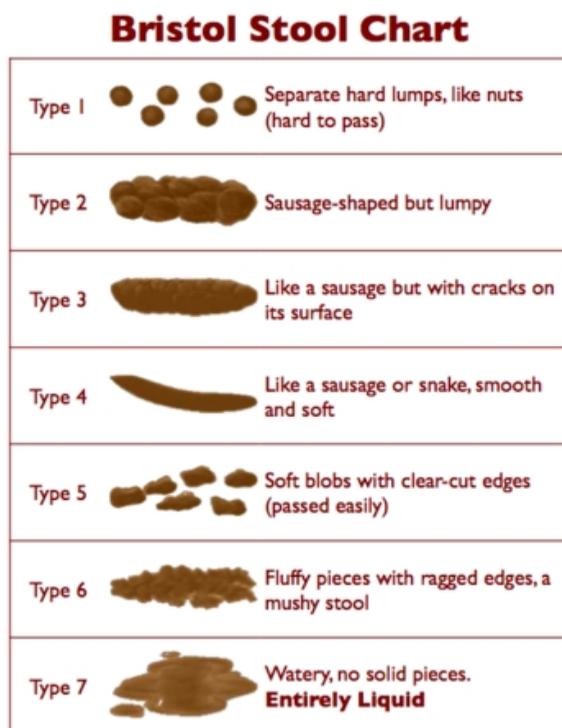


Figure 1: Bristol Stool Chart for Hard stool<sup>12</sup>

Types 1 and 2 indicate constipation, with 3 and 4 being the "ideal stools" especially the latter, as they are the easiest to defecate, and 5–7 tending towards diarrhea.

### Observation

Data analysis consists of two parts, first part to describe the characteristic of the study subjects by using descriptive methods viz. general points like age, sex, prakruti etc. second part consisted of comparisons of pre treatment measurements of the outcome with that of post treatment measurements where we used inferential methods and statistics. Statistical analysis was done for the results using z test.

### Distribution according to age

In this study, maximum number (29 %) of the patients belong to the age group of 40+ and 50+, followed by (26 %) belong to the age group of (30+). (Table 2)

### Distribution according to sex

In this study, maximum number of the patients (63 %) was females in comparison with the males (37 %).

### Distribution according to Prakruti

In this study maximum patients were Vata pitta and Vata kapha prakruti. (Table 3)

### Distribution of 60 patients according to diet

Most of the patients were vegetarians 33 (55 %) and 27 (45 %) were non-vegetarians.

### Distribution of 60 patients according to food habit

Most of the patients had more junk food (87 %) takers and 13 % had less junk food. (Table 4)

### Distribution of 60 patients according to appetite

It was observed that 54 % of patients had normal appetite, 23 % had reduced appetite and 23 % had moderate appetite. (Table 5)

### Distribution of 60 patients according to sleep

The study showed that 33 % of patients had undisturbed and 52 % of patients had disturbed sleep and 15 % had delayed and disturbed sleep. (Table 6)

### Distribution of 60 patients according to addiction

The study showed that 100 % of patients had addiction like tea coffee etc.

### Distribution of 60 patients according to disease

The study showed that more (97 %) patients were suffering from Kosthagatavata, and 3 % were Manas vyadhi + Kosthagatavata. (Table 7)

### Distribution of 60 patients according to type of Malavastambha

The study shows that 80 % of patients were suffering from Vata Pradhana, and 20 % were Vatakapha Prdhana. (Table 8)

### Distribution of 60 patients according to defecation wise

The study shows that 33 % of patients, follow daily defecation and 67 % had not defecated daily. (Table 9)

## RESULT

### Effect on Hard stool

In case of hard stool increase grading mean value is relief sign but excess grade is bad sign i.e. middle is good sign. It is going towards loose motion. The mean score of hard stool was 2.7 before treatment which increased up to 4.57 after treatment. The severity of hard stool was markedly decreased 3.47 after the follow up period. It was a statistically significant in case of experimental group. The mean score of hard stool was 2.68 before treatment which increased up to 4.05 after treatment. The severity of hard stool was decreased 2.58 after the follow up period. It was a statistically not significant in case of trial group. This means Chatuha Prasrutika Basti is effective in reducing the severity of hard stool in patients, better than Tila Taila Basti. (Table 10)

### Effect on severity of Excessive straining

The mean score of Excessive straining in Trial group was 1.87 before treatment which reduced up to 0 after treatment and 0.2 after follow-up. The patients treated with Chatuha Prasrutika Basti are statistically highly significant. The mean score of Excessive straining in control group was 1.95 before treatment which reduced up to 0.05 after treatment, and 1.84 after follow-up. The patients treated with Tila Taila are not significant. This means Chatuha Prasrutika Basti is effective in reducing

the severity of Excessive straining in patients, better than Tila Taila Basti.

**Effect on Incomplete Evacuation**

The mean score of Incomplete Evacuation was 2.3 before treatment which reduced up to 0.27 after follow up. The patients treated with Chatuha Prasrutika Basti are statistically highly significant. The mean score of Incomplete evacuation was 2 before treatment which reduced up to .11 after treatment, and 1.58 after follow-up. The patients treated with Tila Taila are significant. This means Chatuha Prasrutika Basti is effective in reducing the severity of incomplete evacuation in patients, better than Tila Taila Basti.

**Effect on Lower Abdomen Fullness**

The mean score of lower abdomen fullness was 1.03 before treatment which reduced to 0.07 after follow up. The patients treated with Chatuha Prasrutika Basti are statistically highly significant. The mean score of lower abdomen fullness was 0.89 before treatment which reduced up to 0.89 after follow-up. The patients treated with Tila Taila are not significant. This means Chatuha Prasrutika Basti is effective in reducing the severity of lower abdomen fullness in patients, better than Tila Taila Basti.

**Table 2: Distribution of 60 patients according to age**

Age	Total
<30	8
31 – 39	13
40 – 49	14
50 +	14

**Table 3: Distribution of patients according to Prakruti**

Prakruti	Trial	Control
KP	1	0
KV	0	0
PK	1	0
PV	1	2
VK	13	9
VP	14	8

**Table 4: Distribution of patients according to food habit**

Food habit	Total
More junk food	52
Less junk food	8

**Table 5: Distribution of patients according to appetite**

Appetite	Total
Normal	32
Moderate	14
Reduced	14

**Table 6: Distribution of patients according to sleep**

Sleep	Total
Undisturbed	20
Disturbed	31
Delayed and disturbed	9

**Table 7: Distribution of patients according to disease**

Disease	Total
Kosthgata vata	58
Manas vayadhi + Kosthgata vata	2

**Table 8: Distribution of patients according to type of Malavastambha**

Type	Total
Vata Pradhana	48
Vata-Kapha Pradhana	12

**Table 9: Distribution of patients according to defecation routine**

Defecation	Total
Daily defecation	20
Not daily defecation	40

**Table 10: Statistically analysis of observations in both groups**

	Group	Mean	SD	Wilcoxon Signed Ranks Test Z	P value	
<b>Hard stool</b>	Trial	BT	2.70	0.63	3.10	
		AT	1.87			
	Control	BT	2.68		0.90	1.41
		AT	2.58			
<b>Excessive straining</b>	Trial	BT	1.87	0.41	4.75	
		AT	0.20			
	Control	BT	1.95		0.50	1.41
		AT	1.84			
<b>Incomplete Evacuation</b>	Trial	BT	2.30	0.45	4.73	
		AT	0.27			
	Control	BT	2.0		0.51	2.82
		AT	1.58			
<b>Lower Abdomen Fullness</b>	Trial	BT	1.03	0.25	4.04	
		AT	0.7			
	Control	BT	0.89		0.46	0.00
		AT	0.89			
<b>Gas</b>	Trial	BT	2.60	0.66	4.75	
		AT	1.10			
	Control	BT	2.21		0.42	0.00
		AT	2.21			

HS – Highly Significant; S – Significant; NS – Not Significant

### Effect on Gas

The mean score of Gas was 2.6 before treatment which reduced up to 0.07 after treatment and followed 1.1 after follow up. The patients treated with Chatuha Prasrutika Basti are statistically highly significant. The mean score of Gas was 2.21 before treatment which reduced up to 1.1 after treatment, and 2.21 after follow-up. The patients treated with Tila Taila are not significant. This means Chatuha Prasrutika Basti is effective in reducing the severity of Gas in patients, better than Tila Taila Basti.

### DISCUSSION

#### Malavastambha

Malavastambha means Malavrodha. Malavastambha is not a disease (Vyadhi), according to Ayurveda; it is mentioned as Lakshana in Granthas. But in normal day to day life it appears as a disease to many individuals. It is a major root cause of many diseases. As separate Nidanans are not mentioned, the Samanya nidana explained for Vata Vyadhi can be taken as Nidana for Malavastambha in that too, the Vegavidharana (Apana Vayu, Purisha), Avyayama, Vishama Aahara, Virudha Aahara, Shoka, Chinta etc. can be taken as specific to it. Here vitiated Vata Dosha alone or in combination with Kapha Dosha gives rise to Vataja and Vatakaphaja Malavastambha. The cardinal feature of Malavastambha is the incomplete evacuation, excessive straining, hard stool and Aadhmana. Lower abdominal heaviness anal disturbances, mouth smell, loss of appetite are also seen. Treatment of Malavastambha includes general line of treatment of VataVyadhi, Bastikarma, Pavanmuktasana, and Purgatives. On the basis of signs and symptoms Malavastambha can be equated with the disease constipation in modern parlance as there is hard stool, excessive straining, incomplete evacuation, lower abdomen fullness and gas. Constipation sounds different to different people, for many people it simply means infrequent stools. For others however constipation means hard stools, difficulty passing stools (straining) or sense of incomplete evacuation. According to Ayurveda if stool not passed once in 24 hours then it is called constipation.

#### Malavastambha as a lakshana comes in following diseases

Rajyakshama, Arsha (purvarupa), Rudhaguda, Atisara (purvarupa), Pandu (vatic), Udara (purvarupa), Gulma (purvarupa), Asthila/Mutrajathara, Vitavighata, Gudavidradhi, Koshtagatavata

#### Nidana

Here in this present study the important Nidanans which were observed Viz. Abhojana, Vishamasana, Ajirna, Adhyasan, Asatmyasevana, Virudhasevana, Alpajalapan, Ati Katu, Tikta, Kashaya sevana, Ati Guru, Ruksha, Khara, Kathina, Sthira, Vishad Ahara sevana<sup>13</sup>, excessive tea, or coffee, excessive Tobacco, Pana chewing and Smoking. Ativyayama, Avyayama, Ativyavaya, Anidra, Divasvapa, Ati pravata sevana, Vegavidharana (Apana Vayu, Purisha). Kama, Shoka, Chinta, the vitiated Vata get lodged into Pakvashaya and creates Malavastambha.

#### Pratyatma lakshana

In this study excessive straining, incomplete evacuation, gas were the symptoms in Malavastambha and constipation were observed in all the patients.

#### Lakshana

In this clinical trial of the series of patients on the basis of symptoms, researchers decided, Primary end point - Hard stool and lower abdomen fullness. Secondary end point - Incomplete evacuation, excessive straining and Gas, Hard stool 80 % and sticky stool 20 % were observed in sample. The patients having habits of daily defecation (34 %), observed in sample. The patients having habits of not daily defecation (66 %), patients observed in sample. (Defecation 5t/w-9 %, 4t/w-38 %, 3t/w-19 %, <3t/w- 0 %), Present study shows that 100 % of patient had incomplete evacuation, and gas is predominant symptoms. This may be due to Malavastambha as it is a Vatapradhana Vyadhi. (Apana Vayu karma hani)

#### Prakara

In this study most of the patients (80 %) had Vata Pradhan Malavastambha and 20 % patients had Vata-Kapha pradhana Malavastambha. This also helps to get a significant result as Chatuha Prasrutika Basti is having Vatahara, Kaphahara, Bhedana, Srotoshodhaka, Saraka, Dipana Pachana, as well as Prinana effects.

#### Duration

Most of the patients had history of >1 year (76 %).

#### Per abdominal examination

In this study 53 % patients had slightly tender and slightly hard abdomen, 47 % patients had soft and not tender abdomen, in 17 % patients lower abdomen fullness was seen, and in 83 % patients lower abdomen fullness was not seen.

#### Discussion on observation

##### Age

In this study most of the patients belonged to the age group of 30 to 50+ (84 %). This indicates that, Malavastambha is a very common ailment of advancing age. This is due to excessive traveling, excessive work load, Vegavidharna, excessive sitting on chair, less time for Vyayama, taking fast food, tendency to skip meal, Adhyasana etc. may leads, Vata prakopa (Samana Vayu and Apana Vayu dusti), then to Malavastambha.

##### Sex

In this study most patients were male (63 %). As males are doing most of the work outside from house, so they have tendency to take irregular diets, improper diets, Vegavidharana, Yanayana leads to Vataprakopa and Agnimandhya and then more prone to Malavastambha.

##### Diet

The present study showed that maximum number of patients in the study had vegetarian diet habit (55 %) whereas (45%) of them had Non Vegetarian diet. 87 % patients consume junk food, 13 % not consume in large amount. Based on this data, it is difficult to conclude the

relation of this type of food habit to that of Malavastambha. As per modern science if person consume less fibres diet, more junk food is prone to Malavastambha.

#### Appetite

The study showed that 54 % of patients had normal appetite 23 % had reduced appetite and 23 % had moderate appetite. It showed that maximum number of patients had normal appetite. As Agni determines appetite hence it may play an important role for the recovery of Malavastambha.

#### Nidra

The study showed that 33 % of them had good sleep, 52 % had disturbed sleep and 15 % had delayed and disturbed sleep. Maximum patients had disturbed sleep due to uneasiness in abdomen.

#### Addiction

The study showed that 100 % of patients were addicted to certain habits like tea, coffee, alcohol, smoking, pan chewing. Tea, coffee, smoking, pan, all are Kashaya Rasatmaka which aggravates Vata Dosha, with its Ruksha Guna patients are prone to Malavastambha.

#### Prakruti

The study showed that majority of the patients belonged to Vata-pitta Prakruti (60 %), 1 % Patients belonged to Pitta-kapha, 37 % patients belonged to Vata-Kapha prakruti and 1 % pita-vata. Vata dominant persons are more prone to Malavastambha.

#### About treatment

In this study Chatuha Prasrutika Basti (Niruha Basti), and Tila taila (Anuvasan Basti), administered for 9 days as Acharya Charak explained 9 Basti for Vatavyadhi.<sup>14</sup> After the administration of Chatuha Prasrutika Basti, the number of evacuation observed minimum 1 and maximum 2 times per day. In case of 320 ml Tila Taila, minimum 6 and maximum 12 time per day, and in case of 120 ml, 60 ml, Tila Taila minimum 1 and maximum 4 times per day.

Retention time maximum observed -

- For Chatuha Prasrutika Basti - 35 minutes
- For 320 ml Tila Taila - 25 minutes
- For 120 and 60 ml Tila Taila - 13 hours

Retention time minimum observed -

- For Chatuha Prasrutika Basti - 5 minutes.
- For 320 ml Tila Taila - 5 minutes
- For 120 ml, 60 ml Tila Taila - 1 hour

No side effects were noted - in case of Chatuha Prasrutika Basti. Side effects were noted (oil comes without sensation, heaviness in head, feeling uneasiness, taste

change, excessive salivation, excessive Udgar, heaviness in lower extremities before defecation, weakness, excessive evacuation) - in case of 320 ml Tila Taila Basti. No side effects were noted - in case of 120 ml, 60 ml, and Tila Taila Basti. Slightly cold feeling in abdomen – in case of Chatuha Prasrutika Basti

#### CONCLUSION

In this study, it was observed that Chatuha Prasrutika Niruha Basti is more significant than Tila Taila Sneha Basti in Malavastambha. In this study, among the 60 patients registered, majority of the patients were Koshtagatavata who were suffering from Malavastambha. Most of the patients aged between 30-50+ years. Most of the patients had history of >1 year. The statistical analysis revealed that there were statistically significant improvements in parameters like hard stool, excessive staring, incomplete evacuation, lower abdomen fullness, and the improvement remained same after the follow up period by Chatuha Prasrutika Basti. In case of Tila Taila Basti all Parameters of Malavastambha were reduced during treatment but after treatment and follow up all parameters were relapsed. It was found that treatment was less effective in symptom of gas in case of Chatuha Prasrutika Basti.

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