

A Clinical Study of *Matra Basti* and *Patrapinda Swedana* in the Management of *Sandhigata Vata* (Osteoarthritis)

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Abstract

Osteoarthritis is the most common articular disorder that got begun after 30 years of age and is common by age 70 years. Arthritis limits everyday activities such as walking, dressing, bathing etc., thus making individual handicapped. No treatment is available that can prevent, reverse or block the disease process. Researchers are looking for drugs that would prevent, slow down or reverse joint damage. *Acharya Charaka* has mentioned common treatment for *Vatavyadhi* i.e., repeated use of *Snehana* and *Svedana*, *Basti* and *Mridu Virechana*. The present study is a humble effort in search of cure of the disease *Sandhigatavata*. *Basti* is selected for the present study as it is shown best for the treatment of *Vatavyadhi*. Here *Matra Basti* was given with *Bala Taila*. In other group *Patrapinda Swedana* was taken for study. Highly significant results were found in almost all the parameters of *Sandhigatavata*.

Keywords

Matra Basti, *Patrapinda Swedana*, *Sandhigatavata*, *Vatavyadhi*



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INTRODUCTION

Vatavyadhi is a group of vatic disorders. *AcaryaCaraka* has mentioned *NanatmajaVyadhis* of *Vata*, *Pitta* and *Kapha*¹ but, a separate chapter has been contributed to *Vatavyadhi*². *Sandhigataavata* is one among the *Vatavyadhis*. But, it is not included in 80 types of *Nanatmajavataavikaras*³. Though *SandhigataVata* cripples a large number of persons, it rarely kills any person. Because of the tendency to cripple it stands at the head of the list of chronic diseases from the socio-economic standpoint. In the post-*vedic* era, *AcaryaCaraka* refers the disease '*SandhigataAnila*' in the chapter of *Vatavyadhicikitsa*. He has not included the disease under *NanatmajaVataavikaras*⁴. *AcaryaSusruta* mentioned the disease in the chapter of *Vatavyadhi* and the first one to propose the line of treatment⁵.

According to modern point of view it is called Osteoarthritis and is most common joint disease of humans. It is also called as degenerative joint disease⁶. Risk factors include genetics, sex, past trauma, advancing age and obesity⁷. Metabolic and degenerative disease of connective tissue and joint problem are quite affluent today⁸.

During different stages of life diseases prevalence is common due to genetic, infection, systemic, environmental age related and so on⁹. Osteoarthritis represents failure of a diarthrodial joint. To a greater or lesser extent, it is always characterized by both proliferation of new bone cartilage and connective tissues¹⁰.

AIMS AND OBJECTIVES

- To study the aetiopathogenesis of *Sandhivata* with *Ayurvedic* as well as Modern focus.
- To observe the effect of *MatraBasti* in *Sandhivata*.
- To observe the effect of *PatrapindaSweda* in *Sandhivata*.
- To compare efficacy of *MatraBasti* and *PatrapindaSwedana* with control drug.

MATERIALS AND METHODS

- For this study 37 patients of *Sandhivata* fulfilling the criteria of diagnosis were registered irrespective of their age, sex, religion, etc.

Criteria for Diagnosis:

- Patients having signs and symptoms of *Sandhivata* as described in *Ayurvedic* texts were selected for the clinical trial.

- Detailed history was taken and physical examination was done.
- The routine hematological, urine and stool examination were carried out in selected patients to exclude any other pathology, for differential diagnosis R.A. factor was also taken.
- The diagnosis was confirmed by X-ray examination of the involved joint wherever possible.

Inclusion Criteria:

- Patients between the age of 30 years to 60 years and both sexes were included for the study
- Patients who were ready to give informed consent

Exclusion Criteria:

- Age: below 30 years and above 60 years.
- Pregnancy and lactation
- Patients suffering from DM, HTN, Heart diseases, renal pathology, Rheumatoid arthritis, Carcinoma.

Table 1 Contents of *BalaTaila* per 100 ml

Sr.No.	Drug	Family	Latin name	Part	gm/ ml
1	<i>Bala</i>	Malvaceae	<i>Sidacordifolia</i>	1	25
2	<i>Tilataila</i>	Pedaliaceae	<i>Sesame indicum</i>	4	100

Table 2 Drugs used in *YogarajGuggulu* (500 mg Tablet)

Sr. No.	Drug	Family	Latin Name	Part
1	<i>Chitraka</i>	Pumbaginaceae	<i>Plumbagozylenica</i>	9.25 mg
2	<i>Pippali</i>	Piperaceae	<i>Piper lingum</i>	9.25 mg
3	<i>Yavani</i>	Umbeliferae	<i>Trachispermamamami</i>	9.25 mg
4	<i>Krishna jiraka</i>	Umbeliferae	<i>Carumbulbocartanum</i>	9.25 mg

Assessment Parameters:**Subjective parameters**

- *Sandhishhula*
- *Sandhishotha*
- *AkunchanPrasaranayoVedana*
- *SandhiSphutana*
- *Sparsha-asahyata*
- *VatapurnaDritisparsh*
- *Sandhigraha*

Objective parameters

- Joint examination i.e., flexion, SLR etc.

Groups and posology:**Group A: Matrabasti and Yogarajguggulu**

The patients of this group were administered *MatraBasti*

Drug: *BalaTaila*[**Table 1**]

Dose: 60 ml once a day

Duration: 21 days with three days interval.

YogarajGuggulu[**Table 2**] was given in the dose of three tablets twice a day for 30 days.

5	<i>Vidanga</i>	Myrsanaceae	<i>Embaliaribes</i>	9.25 mg
6	<i>Ajmoda</i>	Umbeliferae	<i>Carumroxburgnianum</i>	9.25 mg
7	<i>Swetajiraka</i>	Umbeliferae	<i>Cuminumcuminum</i>	9.25 mg
8	<i>Devdaru</i>	Coniferae	<i>Cedrusdeodara</i>	9.25 mg
9	<i>Chavya</i>	Piperaceae	<i>Piper retrofractum</i>	9.25 mg
10	<i>Ela</i>	Sciataminaceae	<i>Eleteriacardomomum</i>	9.25 mg
11	<i>Saindhava</i>	-	Rock Salt	9.25 mg
12	<i>Kustha</i>	Compositae	<i>Soussurealuppa</i>	9.25 mg
13	<i>Rasna</i>	Compositae	<i>Pluchealanceolata</i>	9.25 mg
14	<i>Gokshura</i>	Zygophyllaceae	<i>Tribulusterestris</i>	9.25 mg
15	<i>Dhanyaka</i>	Umbeliferae	<i>Coriandrumsativam</i>	9.25 mg
16	<i>Haritaki</i>	Combritaceae	<i>Terminaliachebula</i>	9.25 mg
17	<i>Bibhitaki</i>	Combritaceae	<i>Terminaliabelerica</i>	9.25 mg
18	<i>Amalaki</i>	Euphorbiaceae	<i>Embelicaofficinalis</i>	9.25 mg
19	<i>Mustaka</i>	Cyperaceae	<i>Cyprus rotondas</i>	9.25 mg
20	<i>Sunthi</i>	Scitaminaceae	<i>Zingiberofficinale</i>	9.25 mg
21	<i>Maricha</i>	Piperaceae	<i>Piper nigra</i>	9.25 mg
22	<i>Pippali</i>	Piperaceae	<i>Piper longum</i>	9.25 mg
23	<i>Dalachini</i>	Lauranceae	<i>Cinnamonumzeylonica</i>	9.25 mg
24	<i>Ushira</i>	Gramini	<i>Endropogonmuricatuo</i>	9.25 mg
25	<i>Yavakshar</i>	-	-	9.25 mg
26	<i>Talishapatra</i>	Conferee	<i>Abieswebbina</i>	9.25 mg
27	<i>Tejpatra</i>	Lauranceae		9.25 mg
28	<i>Guggulu</i>	Burseraceae	<i>Commiphoramukul</i>	250 mg
29	<i>Ghrita</i>	-	Ghee	Suffiecient Quantity

Group B: *Patrapindaswedana* And *Yogarajguggulu*

The patients of this group were given *Patrapindaswedana* 21 days, *Abhyang* and *Swedana* was done on the affected *Sandhi* for 10 minutes.

YogarajGuggulu was given in the dose of three tablets twice a day for 30 days.

Assessment of Total Effect of Therapy

1. < 25% Relief- Unchanged.
2. 25-50% Relief- Mild improvement.
3. 50-75% Relief- Moderate improvement.
4. >75% Relief- Marked improvement.
5. 100 % Relief- Complete remission.

Statistical analysis:

Student's "t" test (paired and unpaired) was applied for assessment of the results.

RESULTS

In Group A highly significant results were obtained in all the cardinal symptoms (P <0.001). Percentage of relief was in *Sandhishula* 62%, in *Sandhishotha* 61.53%, *AkunchanaPrasaranayohvedana* 58.47%, in *SandhiSphutana* 60%, in *Sparshaasahyata* 86.36%, *Sandhigrah* 50% and in *VatapurnaDritisparsa* 85%.

In group B highly significant results were obtained in all the cardinal symptoms (P <0.001). Percentage of relief in

Sandhishulawas 60%, in *Sandhishotha* 64%, in *SandhiSphutana* 64.28%, in *Sparshaasahyata* 86.36%. Significant relief ($P < 0.05$) was found in *AkunchanaPrasaranayohvedana* 61.11% and in *VatapurnaDritisparsa* 80% [Table 3].

In Group A relief in left knee joint flexion was found highly significant. Relief was found in hip joint flexion. Percentage relief obtained was knee joint flexion Lt. 6.25%,

Rt. 4.74%, Hip joint flexion Lt. 6.61%, Rt. 4.28%, Rt 10%. In group B, Relief in knee joint flexion was highly significant improvement in S.L.R. was significant. Improvement in hip joint flexion (Right leg) was significant and it was highly significant to left hip joint. Percentage relief found in knee joint flexion Lt. was 9.30%, in right knee joint flexion was 9.92%. Hip joint flexion Lt. 7.14%, Rt. 5.57%, 14.86% was found. [Table 4]

Table 3 Effect of therapy on cardinal symptoms

Cardinal Symptoms	Gr	Mean		% Relief	SD±	SE±	t	P	S
		BT	AT						
<i>Sandhishula</i>	A	2.5	0.95	62	0.75	0.16	9.13	<0.001	HS
	B	3	0.9	60	.63	0.2	9	<0.001	HS
<i>Sandhishotha</i>	A	2.6	1	61.53	0.50	0.11	14.23	<0.001	HS
	B	2.5	0.9	64	0.51	0.16	9.79	<0.001	HS
<i>AkunchanPrasaranayoVedana</i>	A	1.9	0.75	58.47	0.36	0.08	1.35	>0.05	HS
	B	1.8	0.7	61.11	0.31	0.1	11	<0.001	S
<i>SandhiSphutana</i>	A	1.25	0.5	60	0.71	0.16	4.68	<0.001	HS
	B	1.4	0.5	64.28	0.73	0.23	3.85	<0.01	HS
<i>Sparsha-asahyata</i>	A	1.1	0.15	86.36	0.39	0.08	10.78	<0.001	HS
	B	1.1	0.1	90.90	0.47	0.14	6.79	<0.001	HS
<i>VatapurnaDritisparsh</i>	A	0.1	0.15	85	0.36	0.08	10.37	<0.001	HS
	B	1	0.2	80	0.42	0.13	0	>0.05	HS
<i>Sandhigraha</i>	A	1.7	0.86	50	0.36	0.08	0.37	>0.05	HS
	B	1.6	1	37.5	0.51	0.16	3.67	<0.01	HS

Table 4 Effect of therapy on Joint Examination

Joint Examination	Gr	Mean		% Relief	SD±	SE±	t	P	S
		BT	AT						
Knee joint flexion									
Left	A	120	127.5	6.25	4.44	0.99	7.54	<0.001	HS
	B	117.27	128.18	9.30	5.39	1.62	6.70	<0.001	HS
Right	A	116	121.5	4.74	12.34	2.76	1.99	>0.05	HS

	B	119.09	130.9	9.92	6.03	1.81	6.5	<0.001	HS
Hip Joint Flexion									
Left	A	128.5	137	6.61	3.66	0.81	10.37	<0.001	HS
	B	126	135	7.14	3.16	1	9	<0.001	S
Right	A	128.5	134	4.28	5.59	1.69	3.24	<0.01	HS
	B	127	134	5.57	6.74	2.13	3.27	<0.05	HS

Relief found in S.L.R. (Right leg)13.51% was significant while S.L.R.(Left leg)18.21%,was highly significant.[Table 5] Overall effect of therapy, complete remission found 75% in Group A and 40%

in Group B while marked improvement found 25% in Group A and 60% in Group B[Table 6].

Table 5 Effect of therapy on SLR

S.L.R.									
Left	A	71.9	85	-18.21	17	3.80	-3.44	<0.01	HS
	B	74	84	13.51	4.71	1.49	6.70	<0.001	HS
Right	A	75	82.5	10	5.50	1.23	6.09	<0.001	HS
	B	74	85	14.86	3.16	1	11	<0.001	HS

Table 6Overall effect of therapy in both Groups

Result	Group A	%	Group B	%	Total no. of patients	Total %
Complete remission	15	75	4	40	19	63.33
Marked improvement	5	25	6	60	1	36.66
Moderate improvement	-	-	-	-	-	-
Mild improvement	-	-	-	-	-	-
Unchanged	-	-	-	-	-	-

DISCUSSION

According to *Ayurveda*, *SampraptiVighatana* is *Chikitsa*. In the disease *SandhigataVata*, *Vataprakopa* and *Khavaigunya* i.e.,*RiktaStrotasa* in *Asthi-Sandhi* are the main factors which leads then *samprapti* of the disease¹¹. *Basti* is the best treatment for *Vata* as told by *AcharyaCharaka*¹².*Basti* drugs first reach to the *Pakvashaya*. It is *mulasthana* for

Vatashodhana. Basti, by destroying *Vatadosha* gets control on *Vata* all over body¹³. *Pakvashaya* is the site of *Purishadharakala*. Commentator *Dalhana* has said that *Purishadhara* and *Asthidharakala* are one and same¹⁴. Therefore, *Basti* drugs directly acts on *Purishadharakala* ultimately acting on *Asthidharakala*. After passing *Pakvashaya*, *Basti* drugs reach to *Grahani* which is the

site of *Pittadharakala*. Here *Dalhana* has said *Pittadharakala* and *Majjadharakala* are one and same¹⁵. So *Basti* has direct effect on *Asthi* and *Majjadharakala* and it may nourishes the *Asthi* and *Majjadhatu*. This, through *Basti* we achieve *Vatadoshashamana* and relief in *Sandhigatavata* by breaking the *samprapti*¹⁶. *Balataila* is best *shamana* for *Vatadosha*. It is *ushna*, *tikshna*, *sukshma* and *snighdha*¹⁷. In Osteoarthritis, there is disruption of glue which binds the cells of the cartilage damage takes place. *Taila* by its qualities provide glue which binds the cartilage cells. *Nirgundi* has *Ushnavirya*, *Vatakaphashamaka* and *Shulaharaproperties*¹⁸. *Patrapindaswedana* helps to ease the pain, relax muscles, activate local metabolic process, increases blood flow and also increases absorption of *sneha* through skin which helps in Osteoarthritis. Most of Ingredients of *YogarajaGuggulu* has *Katurasa*, *ushnavirya*, *Katuvipaka*, *Vata-kaphaShamaka*, *Deepana*, *Pachana*, *Shulahara* and *Shothaghnproperties*¹⁹ which also help in Osteoarthritis.

Vata predominant *prakruti* humans are more prone to *Sandhigatavata* (Osteoarthritis). In the present study it was observed that *Matrabasti* provided better relief in the amelioration of signs and symptoms in comparison to *Patrapindaswedana*.

CONCLUSION

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