

A Comparative Clinical Study on Effect of Matra Basti of Sudhabala Taila and Ketakyadi Taila in Janusandhigata Vata

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Abstract

As per the ayurvedic text vayu (vata) is the main governing factor in our body as well as in the universe. Also it is mentioned that the three Doshas are predominant in different stages of our age like Kapha in Balyavastha (Childhood), Pitta in yuvavastha (Young age), Vata in Vriddhavastha (old age). That's why the degeneration process is more in old age due to the predominance of Vata Dosha in our body. Sandhivata (Osteoarthritis) is one of the common examples of the degenerative disease in old age. In India Sandhivata is more prevalent in postmenopausal age group. For the management of sandhivata vatashamak drugs, Brimhan drug, snehan-swedan and Vasti chikitsa etc are being adopted as per the condition of the disease and the patient. In the present study an effort has been made to manage Sandhivata (Osteoarthritis) with matrabasti and shaman drugs. For the study total 100 no of patients of sandhivata were taken and treated with matrabasti with Sudhabala taila and ketakyadi taila. After treatment significant relief was noticed in both of the groups. In group A(Sudhabala taila) patients 14%, 66%, 16% of patients experienced complete remission, marked improvement and moderate improvement respectively. Where as in group B (Katakyadi taila) patients the same was 10%, 68%, and 20% respectively. The rest 4% in group A and 2% in group B patients were experienced no relief. Hence the group B patients showed better result in comparison to group A patients. From the study it can be concluded the matrabasti has a great scope in the management of Janusandhigata vata.

Keywords: Matrabasti, Janusandhigata vata, ketakyadi taila, Sudhabalataila, Osteoarthritis.**Copyright @ 2020:** This is an open-access article distributed under the terms of the Creative Commons Attribution license which permits unrestricted use, distribution, and reproduction in any medium for non-commercial use (NonCommercial, or CC-BY-NC) provided the original author and source are credited.

INTRODUCTION

Sandhigata Vata is described in all Samhita and Sangraha Grantha as a separate clinical entity under the heading of Vata Vyadhi. It is not included in 80 types of Nanatmaja Vatika Vikara by Acharya Charaka. Acharya Charaka was the first who had described the disease separately under the name of Sandhigata Anila and Acharya Sushruta was the first who has given a line of treatment of Sandhivata, first time separately.

Sandhigatavata specially occurs in vriddhavastha which is parihanikala in which dhatukshaya takes place which in turn leads to vataprakopa. Vata and asthi have ashraya-ashrayi sambandha[i], which means vata is situated in asthi. Vriddha or increased vata diminishes sneha from asthidhatu by its opposite qualities to sneha, by which khavaigunya (Rikta-Srotas) occurs in asthi which is responsible for the pathogenesis of Sandhigatavata. But modern civilization, western lifestyle, defective diet pattern has invited a number of diseases irrespective of

age, sex, race etc. Osteoarthritis (Sandhivata) is one of them. Now a days this disease is commonly found in earlier age groups also.

Symptoms of Janu Sandhigatavata are sandhishula, sandhishotha, akunchana prasarana janya vedana^[ii], hanti sandhi gati, stambha and atopa^[iii] described by various Acharya. Symptoms of Janu Sandhigatavata are similar to that of osteoarthritis i.e. joint pain, swelling, stiffness, disability and crepitation over joint. Here, sandhishula, sandhishotha are due to vata prakopa and special type of shotha i.e. vatapurna driti sparsha or atopa indicate vata dominancy. Akunchana prasaranjanya vedana and hanti sandhi gati occur due to kaphakshya and vata prakopa.

Acharya Sushruta and Acharya Vagbhatta has described specific treatment for the Sandhigatavata first time i.e. Snehana, Upanaha, Agnikarma, Bandhana and Unmardana. Acharya Charaka has mentioned repeated use of Snehana, Svedana, Basti and Mridu Virechana

for the treatment of Vatavyadhi in general. He has not mentioned specific treatment for Sandhigatavata.

Usually the onset of symptoms of this disease starts at about 4th decade of life which according to Sushruta is Hani stage of Madhyama Vaya. The most commonly affected parts are knee, hip, sacroiliac, ankle joints, distal interphalangeal joint, metatarso phalangeal joint, which are weight bearing parts of the body. Disease Osteoarthritis can also occurs as a complication of some other disease or due to Dushti of Vata, Meda, Asthi and Majja are main factors which are generally seen among the patient of Janu Sandhivata.

In the treatment point of view, modern medical science treat osteoarthritis with analgesics (pain relievers), anti-inflammatory drugs and antioxidants e.g. vitamin A, B, C, E (prevent the joint from oxidative damage). Antioxidants are the substances that prevent free radical induce damage in the body.

The weight bearing joints like knee, hip, sacroiliac joints, ankle joints are commonly affected in osteoarthritis. Therefore, body weight reduction and avoiding from weight lifting is important in prevention and further worsening the disease. Muscles, ligaments and tendons are responsible for the joint stability. So surrounding tissue of the joint must be strong to prevent or cure the osteoarthritis. If they are weak, joint damage will occur soon even with the minimal stressor on the joints. Treatment of osteoarthritis should be in such a way that, which makes tissue strong. In Ayurveda, sandhishula is one of the symptoms of Mamsakshaya and Sandhisphutana is a symptom of Majjakshaya. Weak bone can't bear even normal load and it immediately gets damaged. For the present study,

Drug, dose, duration

	Group – A	Group- B
Drug	Suddha Bala Taila	Ketakyadi Taila
Dose	1.5 pala (approx. 72 ml)	1.5 pala (approx. 72 ml)
Duration	15 basti, once daily	15 basti, once daily
Route of administration	Anal route	Anal route
Follow Up.	Every 15 days for one month	Every 15 days for one month

Inclusion Criteria

1. Age : 30 – 70 yrs of age
2. Sex : Both
3. Clinically and radiographically diagnosed patient of Janu sandhigata vata.
4. Morning stiffness lasting 30 minute or less
5. Patients indicated for Matra basti.

Exclusion Criteria

1. Osteo arthritis secondary to other conditions like trama, fractures etc.
2. Complete loss of articular cartilage
3. Severe bursitis
4. Pregnant women and lactating mothers.

treatment was selected which is able to serve the entire requirement as mentioned above to treat the disease of Janu sandhigatavata.

Basti is the best therapy for the Vata saman activity. It also acts as Rasayana, vata shamak. Suddhabala taila and Ketakyadi taila described in Sahasrayogam Taila prakarana has been selected for matra Basti in the management of Sandhi Vata. With the above concept this clinical trial was undertaken in two groups. Group –A (Suddhabala taila group) In this group 50 patients were treated with SuddhaBala taila matravasti for 15 days. Group – B (Ketakyadi taila) in this group 50 patients of Janusandhigata vata were treated with Ketakyadi taila matrabasti for 15 days. Both the taila were taken from Sahasrayogam Taila Prakaran.

MATERIAL & METHODS

The patients were collected from the Panchakarma OPD and IPD of Government Ayurvedic College, Bolangir, Odisha.

Type of Study : Open study

Selection : Random.

No. of patients : 100(50 in each group)

Trial Drug : *Suddha Bala taila & ketakyadi Taila*

Procurement of Drugs: Both the drugs were taken from Sahasra Yoga and prepared according to taila paka vidhi described in the classics at Nagarjuna Pharmacy, Sri Nrusinghnath Ayurvedic College and Research center, Paikamala, Odisha.

Pathya – Apathya : Was followed with respect to *Janu sandhigata vata* as described in literature review.

5. Patients who leave the treatment in between.
6. Patient with contractures of joints was not included.
7. Associated with other systemic diseases like Diabetes mellitus, Hypertension etc. which might interfere the present study.

Follow up: Follow up of the patients was done upto one month.

Investigations: Blood – DLC, TLC, Hb%, ESR, RBS

- Serum RA factor
- X-ray of affected Joint

Observations

Table-1: (Showing overall improvement effect of therapy in 100 patients of Janusandhigata Vata)

Sl. No.	Effect of therapy	No. Of Patients		Total no of patients	Percentage
		Group- A	Group- B		
1	Cured	07	05	12	12
2	Markedly improved	33	34	67	67
3	Improved	08	10	18	18
4	Unchanged	02	01	03	03

In the present study after the therapy completed 12 % patients became symptom free where as 03 % of cases were having no relief. 67 % of cases

got maximum improvement and 18% cases got improvement in symptoms.

Table-2: (Effect of therapy on cardinal symptoms of Group – A patients)

Cardinal Symptom	Joint involved	Mean Score		%age of relief	S.D. (±)	S.E. (±)	T	P
		BT	AT					
Sandhi shula	Lt. Knee	2.47	0.56	73.68	.093	0.19	9.34	<0.001
	Rt. Knee	2.48	0.68	70.96	0.92	0.18	9.50	<0.001
Sandhi sotha	Lt. Knee	1.25	0.50	60	0.46	0.16	4.58	<0.001
	Rt. Knee	1.58	0.50	68.42	0.51	0.14	7.29	<0.001
Akunchana Prasarana Vedana	Lt. Knee	2.04	0.50	73.33	0.74	0.15	9.50	<0.001
	Rt. Knee	2.13	0.5	74.46	0.73	0.15	10.16	<0.001
Stambha (Stiffness)	Lt. Knee	1.37	0.47	69.23	0.23	0.05	18.00	<0.001
	Rt. Knee	1.72	0.50	74.19	0.46	0.10	11.76	<0.001
Sandhi sphutan (Crepitation)	Lt. Knee	1.78	1.50	56.62	0.86	0.18	5.78	<0.001
	Rt. Knee	1.95	0.85	56.41	0.85	0.19	5.77	<0.001
Sparsha Asahyata (Tenderness)	Lt. Knee	1.37	0.31	73.07	0.47	0.10	9.24	<0.001
	Rt. Knee	1.72	0.33	77.42	0.59	0.14	9.52	<0.001
Walkng time		1.35	0.97	28.14	0.53	0.25	18.00	<0.05
Sandhigati Asamarthya (Flexion of Knee joint)	Lt. Knee	120.62	126.87	6.18	1.54	5.18	4	<0.01
	Rt. Knee	120.62	126.25	4.66	6.29	1.57	3.57	<0.01

The *sandhishula* (joint pain) was relieved 73.68% and 70.96% in left and right knee joint respectively. The *sandhishotha* (joint swelling) was relieved 60% and 68.42% in left & right knee joint respectively ($p<0.001$). The *akunchana prasarana vedana* (pain during movement) was relieved 73.33% and 74.46% in left & right knee joint respectively. The *Stambha* (stiffness) was improved 69.23% and 74.19% in left & right knee joint respectively, values are statistically highly significant ($p<0.001$). The 56.62 % and 56.41% improvement was reported in *sandhisphutana* (crepitation) in left & right knee joint respectively, values are statistically highly significant

($p<0.001$). The *sparsha asahyata* (tenderness) of left & right knee joint was improved 73.07% and 77.42% respectively, values are statistically highly significant ($p<0.001$). Effect on **Left Knee Joint Flexion**: The mean score of left Knee Joint Flexion before treatment was 120.62 which were increased to 126.87 after the treatment. Here 5.18% relief was noted which was statistically highly significant ($p<0.01$). Effect on **Right Knee Joint Flexion**: The mean score of right Knee Joint Flexion was 120.62 before treatment which was increased to 126.25 after the treatment. Here 4.66% relief was noted which was statistically highly significant ($p<0.01$).

Table-3: (Effect of therapy on cardinal symptoms of Group-B patients)

Cardinal Symptom	Joint involved	Mean Score		%age of relief	S.D. (±)	S.E. (±)	T	P
		BT	AT					
Sandhi shula	Lt. Knee	2.64	0.77	67.24	0.81	0.17	10.23	<0.001
	Rt. Knee	2.45	0.68	70.37	0.82	0.18	9.79	<0.001
Sandhi sotha	Lt. Knee	1.60	0.20	87.50	0.50	0.13	10.69	<0.001
	Rt. Knee	1.65	0.29	82.14	0.49	0.12	11.32	<0.001
Akunchana Prasarana Vedana	Lt. Knee	2.25	0.60	71.11	0.59	0.13	11.96	<0.001
	Rt. Knee	2.19	0.67	69.56	0.68	0.15	10.27	<0.001
Stambha (Stiffness)	Lt. Knee	1.69	0.37	74.07	0.58	0.14	8.66	<0.001
	Rt. Knee	1.59	0.35	77.78	0.66	0.16	7.67	<0.001
Sandhi sphutan (Crepitation)	Lt. Knee	1.93	1.13	44.83	0.74	0.19	4.52	<0.001
	Rt. Knee	1.67	0.94	46.67	0.80	0.19	4.08	<0.001
Sparsha Asahyata (Tenderness)	Lt. Knee	1.42	0.26	77.78	0.74	0.17	6.53	<0.001
	Rt. Knee	1.47	0.35	76.00	0.60	0.14	7.68	<0.001
Walkng time		1.35	0.97	28.14	0.53	0.25	18.00	<0.05
Sandhigati Asamarthya (Flexion of Knee joint)	Lt. Knee	120.62	126.87	5.18	6.18	1.54	4	< 0.01
	Rt. Knee	120.62	126.25	4.66	6.29	1.57	3.57	<0.01

The *Sandhishula* was, relieved 67.24% and 70.37% in left and right knee joint respectively. The *Sandhi shotha*, was improved 87.50% and 82.14% in left and right knee joint respectively. The *ankuchan prasarana vedana* was improved 71.11% and 69.56% in left and right knee joints respectively. The *Stambha* (Stiffness) was relieved 74.07% and 77.78% in left & right knee joint which is statistically significant ($p<0.001$). *Sandhisphutan* (crepitation) was improved 44.83% and 46.67% in left & right knee joint which is statistically significant ($p<0.001$). *Sparsha asahyata*

was improved 77.78% and 76.00% respectively. All the values are statistically highly significant ($p<0.001$). Effect on Left Knee Joint Flexion: The mean score of left Knee Joint Flexion before treatment was 120.62 which were increased to 126.87 after the treatment. Here 5.18% relief was noted which was statistically highly significant ($p<0.01$). Effect on Right Knee Joint Flexion: The mean score of right Knee Joint Flexion was 120.62 before treatment which was increased to 126.25 after the treatment. Here 4.66% relief was noted which was statistically highly significant ($p<0.01$).

Table-4: (Percentage of relief in cardinal symptoms of both Group patients)

Cardinal Symptoms	Joint	Group – A		Group – B	
		% of Relief	Mean %	% of Relief	Mean %
Sandhi shula	Lt. Knee	73.68	72.32	67.24	68.805
	Rt. Knee	70.96		70.37	
Sandhi sotha	Lt. Knee	60	64.21	87.50	84.82
	Rt. Knee	68.42		82.14	
Akunchana Prasarana Vedana	Lt. Knee	73.33	73.895	71.11	70.335
	Rt. Knee	74.46		69.56	
Stambha (Stiffness)	Lt. Knee	69.23	71.71	74.07	75.925
	Rt. Knee	74.19		77.78	
Sandhi sphutan (Crepitation)	Lt. Knee	56.62	56.515	44.83	45.75
	Rt. Knee	56.41		46.67	
Sparsha Asahyata (Tenderness)	Lt. Knee	73.07	75.245	77.78	76.89
	Rt. Knee	77.42		76.00	
Walkng time		28.14	28.14	28.14	28.14
Sandhigati Asamarthya (Flexion of Knee joint)	Lt. Knee	6.18	5.42	5.18	4.92
	Rt. Knee	4.66		4.66	

DISCUSSION

From the observations following conclusions were made:-

- In group A, 5 patients (10%) and group B, 7 patients (14%) got complete remission. While 30 patients (60%) in group A, 37 patients (74%) in group B showed markedly improvement whereas 8 patients (16%) in group A and 10 patients (20%) in group B showed moderately improvement. In group A 02 patients (04%) and in Group – B, 01 patient (02%) were found in unchanged condition. Hence, it can be said that overall effect of group B was better on the patients of Janu Sandhivata in comparison to group A.
- On comparison of the percentage of relief in different symptoms of janusandhigata vata of both the groups it was observed that the relief in Sandhishula is 72.32% and 68.805% in group A & B respectively. In Sandhisotha it was 64.21% and 84.82% respectively. In Akuncane prasarane Vedana (pain on movement) the relief was 73.895% and 70.335% in Group A & B respectively. In Stambha (stiffness) the percentage of relief was 71.71% and 75.925% in group A & B respectively. In the symptoms like sandhisputan (crepitation), sparsa asahatya (tenderness), sandhigati asamarthya the percentage of relief was (56.51% - 45.75%), (75.24% - 76.89%), (5.42% - 4.92%) in group A & B respectively. In walking time both the group showed the same percentage of relief. From the above observation it can be said that both the drugs are less or more similar effect in the management of Janu sandhigata Vata.
- Matra Basti of Suddhabala Taila comprises mainly Bala, cow milk and Tila Taila. Ketakyadi taila contains Ketaki moola, Bala, AtiBala, Yava and Tila Taila. These drugs possess mainly Snigdha

Guna, Ushna Virya, Vata Kaphanashaka, Balya and Rasayana properties, thus provided significant effect on almost all the symptoms of JanuSandhigata vata. Pharmacological study also shows that these drugs also possess anti-inflammatory and anti-arthritis properties.

- This was a short time trial study. But for more precise study more no of patients should be enrolled and a long term study with long term follow up is needed.
- However it can be concluded that both the drugs Suddhabala taila and ketakyadi taila Matra Basti are more or less having similar effect in the management of Janusandhigata Vata.

CONCLUSION

On comparison of the percentage of relief in different symptoms of janusandhigata vata of both the groups it was observed that the relief in Sandhishula is 72.32% and 68.805% in group A & B respectively. In Sandhisotha it was 64.21% and 84.82% respectively. In Akunchane prasarane Vedana (pain on movement) the relief was 73.895% and 70.335% in Group A & B respectively. In Stambha (stiffness) the percentage of relief was 71.71% and 75.925% in group A & B respectively. In the symptoms like sandhisputan (crepitation), sparsa asahatya (tenderness), sandhigati asamarthya the percentage of relief was (56.51% - 45.75%), (75.24% - 76.89%), (5.42% - 4.92%) in group A & B respectively. In walking time both the group showed the same percentage of relief. However it can be concluded that both the drugs Suddhabala taila and ketakyadi taila Matra Basti are more or less having similar effect in the management of Janusandhigata Vata. Matrabasti has a great scope in the management of Janusandhigata vata.

ⁱ Su. Su. 15/7, A. H. Su. 11/26-28

ⁱⁱ vatpu[RÔ, it SpzR> zaew> siNxgte=inle, àsar[ak...Ncnyae> àiuití svedna.

ⁱⁱⁱ hiNt siNxgt> siNxn! c zUlaqaepaE kraeit c, (Ma. Ni. 22/21)