

**EVALUATION OF THE COMBINED EFFECT OF CHINCHADI TAILA  
MATRAVASTHI, NIRGUNDYADI LEPA AND ADITYPAKA GUGGULU IN  
THE MANAGEMENT OF JANU SANDHIGATAVATA WITH SPECIAL  
REFERENCE TO KNEE OSTEOARTHRITIS**

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**ABSTRACT**

*Sandhigata vata* is one of the *Vatavyadhi* which is characterized by *Shoola*, *Shotha*, *Sthambata*, *Atopa* and *Prasarakunchnayo Pravruttsichya Savedana*. Clinically it can be correlated to osteoarthritis. In the present study total 30 patients diagnosed with *Janu Sandhigata vata* were included. After the treatment (30<sup>th</sup> day) 82.14% of maximum improvement was shown in *Sandhi Shoola*, 84.21% of improvement was shown for *Sandhi Shotha*, 80% of improvement seen in *Sandhi Sthambata*, 52.24% of improvement shown for *Sandhi Atopa* and 83.92% of improvement noted for *Prasarana Akunchana yascha Savedana*. The administration *Chinchadi Taila Matravasti*, *Adityapaka Guggulu* and application of *Nirgundyadi Lepa* in combined form has shown significant results at the level of p value less than 0.0001 in the management of *Janu Sandhigatavata*.

**KEYWORDS:** *Matravasti*, *Lepa*, *Adityapaka Guggulu*, *Janu Sandhigata vata*, Knee Osteoarthritis

**INTRODUCTION**

*Sandhigata vata* is one among the *VataVyadhi* which is characterized by *Sandhi Shoola*, *Sandhi Shotha*, *Sandhi Stambhata*, *Prasarana Aakunchanayascha Savedana*<sup>1</sup>, *Sandhi Atopa*<sup>2</sup> etc. In contemporary science it can be clinically correlated to Osteoarthritis based on its clinical signs and symptoms like joint pain, joint swelling, joint stiffness, crepitus and restriction of movement etc<sup>3</sup>.

According to World Health Organization (W.H.O) Osteoarthritis is the second commonest musculoskeletal problem in the world populations coming to 30%. Almost all persons by age 40 have some pathologic

change in weight bearing joint (Knee).<sup>4</sup>The prevalence rate of Osteoarthritis in women (13%) is more as compared to that of men (10%)<sup>5</sup>. *Acharya Charaka* has described common treatment for *VataVyadhi* as repeated use of *Snehana*, *Swedana*<sup>6</sup>. *Acharya Sushruta* has mentioned the treatment for *Sandhigatavata* clearly i.e. *Snehana*, *Upanaha*, *Agnikarma*, *Bandhana* and *Unmardana* and other procedures<sup>7</sup>. These procedures may help the patients by improving the routine daily activities and prove to be easily available, effective and economical. In *Janu Sandhigata vata* because of *Sheeta*, *Laghu* and *Ruksha Guna*,

Vatadosa aggravates & vikruta vata gets lodged in Sleshak Kapha Sthana. Hence Rooksha, Ushna and Teekshna Guna Pradhana Sneha Dravya Chinchadi Taila Selected for Matravasti. The Nirgundyadi lepa will act as shothahara and Shoolahara. Adityapaka Guggulu is indicated in Sandhigata vata by Chakradatta. Which helps in restoration of functions of Sandhi.

**OBJECTIVE:** To evaluate the efficacy of Chinchadi Taila Matravasti Nirgundyadi Lepa and Adityapaka Guggulu in the management of Janu Sandhigata vata (Knee Osteoarthritis).

### METHODOLOGY

**Study design:** Single group open clinical trial.

**Sample Size:** 30

The 30 diagnosed patients of Janu Sandhigata vata attending OPD and IPD department of Kayachikitsa in BVVS Ayurved Medical College and Hospital, Bagalkot were taken. Informed written consent was taken from all the patients.

### Selection Criteria:

#### 1. Diagnostic criteria:

a) The diagnosis was made, based on signs and symptoms of Janu Sandhigata vata (Knee Osteoarthritis) as follows

1. Sandhi Shoola (pain in the knee joint)
2. Sandhi Shotha (swelling of the knee joint)
3. Sandhi Sthambata (stiffness of the knee joint)
4. Sandhi Atopa (crepitus)
5. Prasarana Akunchanayascha Savedana (painful range of movement)
  - b) X – ray of knee joint.

#### 1. Inclusion criteria:

1. Diagnosed patients of Janu Sandhigata vata (Knee Osteoarthritis)
2. Patients between the age group of 40 to 70 years of either gender.
3. Patients who are fit for Vasti Karma

#### 2. Exclusion criteria:

1. Patients with other Joint disorders like Amavata (Rheumatoid Arthritis), Vatarakta (Gouty Arthritis), Kroshtuka Shirsha etc.
2. Patients of Janu Sandhigata vata due to Abhigata (Trauma).
3. Patients with any anatomical deformity of knee joint.
4. Patients associated with any systemic disorders and metabolic disorders such as Tuberculosis, Paralysis, Neurological disorders, Genu valgum, etc.
5. Pregnancy and Lactating women.

**Table no. 01: Treatment protocol of the study:**

Sl. No	Chikitsa (Method of Administration)	Oushadhi	Kalpa	Kala	Matra
1	Matravasti	Chinchadi Taila <sup>8</sup>	Taila	1 <sup>st</sup> day to 15 <sup>th</sup> Day morning, after food.	40ml
2	Lepachikitsa	Nirgundyadi Lepa <sup>9</sup>	Kalka	1 <sup>st</sup> day to 15 <sup>th</sup> Day once in a day (morning)	0.5cm thickness (1/4 <sup>th</sup> Angula)
3	Oral	Adityapaka Guggulu <sup>10</sup>	Vati	1 <sup>st</sup> day to 30 <sup>th</sup> day Sevana Kala- after food	Each Vati 1gm TID (i.e. 3gm/day)

**Follow Up:** 45<sup>th</sup> day

**Assessment criteria:** The result of the treatment was assessed before, during and after treatment, based on standard scoring as follows.

**Table no. 02: Criteria for the assessment of parameters:**

Sl. No	Scoring Assessment	G0	G1	G2	G3	G4
1	<i>Sandhi Shoola</i> (joint pain) <sup>11</sup>	No Pain	Mild pain	Moderate pain but no difficulty to walking	Slightly difficulty in walking due to pain	Severe difficulty in walking due to pain
2	<i>Sandhi Sotha</i> (joint swelling) <sup>12</sup>	No Swelling	Mild Swelling	Moderate Swelling	Severe Swelling	–
3	<i>Sandhi Stambhata</i> (joint stiffness) <sup>13</sup>	No Stiffness	Mild Stiffness	Moderate Stiffness	Severe stiffness more than 15min	–
4	<i>Sandhi Atopa</i> (crepitus) <sup>14</sup>	No Crepitus	Palpable Crepitus	Audible Crepitus	Always audible Crepitus	–
5	<i>Prasarana Akunchanayaschedana</i> (Goniometer) <sup>15</sup>	135 <sup>0</sup> -115 <sup>0</sup>	115 <sup>0</sup> -105 <sup>0</sup>	105 <sup>0</sup> -95 <sup>0</sup>	95 <sup>0</sup> -85 <sup>0</sup>	–

**Statistical analysis:**

The collected data and observations was analysed critically and scientifically by paired ‘t’ test.

**Overall clinical assessment of the trial:**

1. Good Response: 76-100 % and more improvement in overall clinical parameters.

2. Moderate Response: 51%-75% improvement in overall clinical parameters.

3. Mild Response: 26%- 50% improvement in overall clinical parameters.

4. No Response: less than 25%

**OBSERVATIONS AND RESULT**

In the present study, majority of the patients were belongs to the age group of 40-50 years (46.66%), Majority of the patients were males (60%), (86.66 %) of patients were belongs to Hindu religion, (83.33 %) of patients were literate, (36.66 %) of patients were poor & (36.66 %) of patients were middle by

economic status, All the patients were belonging to *Jangaladesha*, (63.33 %) of patients were vegetarians, (40%) of patients were having habit of tea and (66.66 %) females had menopause.

In the present study, (100%) patients had *Janu Sandhi Shoola*, (46.66%) of patients had *Janu Sandhi Shotha*, (56.66%) of patients had *Janu Sandhi Sthambata*,

(96.66%) of patients had Janu Sandhi Atopa and (100%) of patients had PrasaranaAkunchanayaschaSavedana.(93.33%) of patients had affected by bilateral

knee joints. (63.33%) of patients were having chronicity 1-4 years, (83.33%) of patients were having gradual mode of onset.

**Table no.: Statistical Analysis of subjective and objective parameters by Paired t-test:**

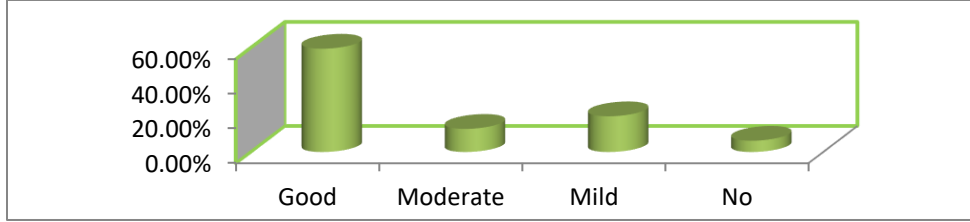
Parameters		Mean	% of imp	Sd	't' value	'p' value	Significance
Sandhi Shoola	BT	2.80	-	0.81	-	-	-
	8 <sup>th</sup>	1.93	30.95%	0.78	13.7295	<0.0001	HS
	15 <sup>th</sup>	1.17	58.34 %	0.70	13.3789	<0.0001	HS
	30 <sup>th</sup>	0.50	82.14%	0.78	14.3660	<0.0001	HS
	45 <sup>th</sup>	0.33	88.09 %	0.71	13.8825	<0.0001	HS
Sandhi Shotha	BT	0.63	-	0.81	-	-	-
	8 <sup>th</sup>	0.37	42.11 %	0.49	3.2474	0.0029	VS
	15 <sup>th</sup>	0.17	73.68 %	0.38	4.0649	0.0003	VS
	30 <sup>th</sup>	0.10	84.21 %	0.31	4.0000	0.0004	HS
	45 <sup>th</sup>	0.03	94.73 %	0.18	4.2672	0.0002	HS
Sandhi Sthambata	BT	0.97	-	0.98	-	-	-
	8 <sup>th</sup>	0.63	36.67 %	0.72	4.0975	0.0003	HS
	15 <sup>th</sup>	0.30	70 %	0.53	4.8265	<0.0001	HS
	30 <sup>th</sup>	0.20	80 %	0.48	4.9418	<0.0001	HS
	45 <sup>th</sup>	0.17	83.33 %	0.46	5.0000	<0.0001	HS
Sandhi Atopa	BT	2.23	-	0.68	-	--	--
	8 <sup>th</sup>	1.90	14.92 %	0.61	3.0104	0.00054	VS
	15 <sup>th</sup>	1.27	43.28 %	0.64	12.7939	<0.0001	HS
	30 <sup>th</sup>	1.07	52.24 %	0.64	12.0416	<0.0001	HS
	45 <sup>th</sup>	1.00	55.22 %	0.59	11.8863	<0.0001	HS
Prasana akunchana -yascha savedana	BT	1.87	-	0.78	-	-	-
	8 <sup>th</sup>	1.23	33.93 %	0.73	7.0775	<0.0001	HS
	15 <sup>th</sup>	0.60	67.86 %	0.67	10.8457	<0.0001	HS
	30 <sup>th</sup>	0.30	83.92 %	0.65	11.0886	<0.0001	HS
	45 <sup>th</sup>	0.23	87.5 %	0.63	11.6960	<0.0001	HS

**Overall Response to the treatment:**

18(59.56%) were shown Good response 04(13.33%) were shown Moderate response, 06(20.60%) patients shown Mild response and 03(6.51%) patients shown No response to the treatment.

**Table No 03. Showing the distribution of Overall Response to the treatment:**

Sl.no.	Response	No. of patients	Relieved
01	Good Response	18	59.56 %
02	Moderate Response:	04	13.33
03	Mild Response:	06	20.60
04	No Response:	03	6.51



## DISCUSSION

The maximum drugs in all the three *Yogas* i.e. *Chinchadi Taila*, *Nirgundyadi Lepa* & *Adityapaka Guggulu* possess *Ushna Veerya* which subsides *Vata Dosha* and also act on *Dushita Kapha*, *Ama* or *Avarana* if present, if not it does *Deepana pachana* at the level of *Dhatvagni*.

### Probable combined Mode of Action of *Chinchadi Taila Matravasthi*, *Nirgundyadi Lepa* and *Adityapaka Guggulu*:

In *Janu Sandhigata vata*, because of *Sheeta*, *Laghu* and *Ruksha Guna Vata dosha* aggravates, The vitiated *Vata Dosha* gets lodged in the *Janu Sandhi* inturn vitiates the *Sheshaka Kapha*. And one more condition where *Vata Prakopa* occurs may be due to *Avarana*.

In *Chinchadi Taila* drugs like *Chincha*, *Shigru*, *Arjaka* & *Panchalavana* having *Ruksha*, *Ushna* & *Laghu Guna Pradhana Sneha dravya* possess *Vatahara* qualities, *Nirgundyadi Lepa Kalka* having *Ruksha*, *Laghu*, *Teekshna Guna* drugs like *Chincha*, *Nirgundi* & *Karanja* which will help to do *Kapha Prasadana*, *Sthanika Shoolahara* & *Shothahara* and *Adityapaka Guggulu* consists of drugs like *Triphala*, *Pippali*, *Twak*, *Ela Guggulu* and *Bhavana Dravya Dashamoola Kwatha*, these drug acts as *Agnideepana*, *Srotoshodhana*, *Amapachana*, *Vatanulomaka*, *Shoolahara* and *Shothahara* action that is, in whole it restores the functions of *Sandhi*

which will helpful in improvement of the condition of *Janu Sandhigata vata*.

## CONCLUSION

→As *Janu Sandhigatavata* is weight bearing joint so prevalence rate is very much high as compared to other joints. So selection of treatment protocols, must be having Multidimensional actions i.e. it cure the disease & further process of pathological events will not get progress, it should maintain the health of the joints.

→Treatment protocol i.e. *Chinchadi Taila Matravasthi*, *Nirgundydi Lepa* and *Adityapaka Guggulu* was effective in all subjective & objective parameters but not much effective in *Sandhi Atopa* as compared to other parameters.

→The combined effect of *Chinchadi Taila Matravasthi*, *Nirgundyadi Lepa* and *Adityapaka Guggulu* in the management of *Janu Sandhigatavata* shown the overall response as, Good response-59.56%, Moderate response- 13.33%, Mild response-20.60 % & No response is shown 6.51% i.e. treatment protocol shown the highly significant rate at the level of p value <0.0001

**Limitation of the study:** Sample size is less.

### Recommendations for the further study:

The following recommendations are made on the basis of observation and conclusion for the further studies of the study.

→ Same study can be conducted by taking larger samples.

→ The same treatment protocol can also be applied in Dhatushayajanya vatavyadhi due to Amaja conditions like amavata & other Avaranajanya vata vyadhi also

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