



# CLINICAL STUDY EVALUATING THE EFFECT OF *KETHAKYAADI TAILA* IN *JAANU SANDHIGATA VATA*

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## Abstract:

*Jaanusandhigata vata* which can be correlated to Osteoarthritis of the knee is a chronic inflammatory joint disorder that can be managed through *Ayurveda* if diagnosed early. The incidence of this disease is increasing in the present scenario. *Jaanu sandhigata vata* is a type of *vatavyadhi* that mainly occurs due to *dhathukshaya* which limits day-to-day activities. According to *Ayurveda*, *snehana*, *swedana*, *dahana*, and *upanaha* are the key treatments in the management of *jaanusandigata vata* which aims at *brumhana*.

**Abstract:** *sandhi gata vata, jaanu, taila*

**Introduction:**

*Sneha kalpana* is one of the important *kalpana* explained in *Ayurveda* classics. It can be used for external as well as internal use. *Taila* is one among *chathusneha*<sup>1</sup> which is having *vata hara* property<sup>2</sup>. *Samskaritha sneha* is having the property of *sneha* as well as chosen drugs. In *sandhi gata vata chikitsa Vagbhata acharya* explained *sneha*<sup>3</sup> as treatment. In *jaanu sandhigata vata*<sup>4</sup> we can see symptoms similar to *asthi ashraya vata kopa*. According to *ashraya ashrayi* relationship between *asthi* and *vata* is related<sup>5</sup>. In *sandhi gata vata* we can do *bahya abhyantara sneha* because symptoms are similar to *asthi ashraya vata kopa* as per *Charaka Acharya*<sup>6</sup>. *Jaanu sandhigata vata* is a common joint disorder seen among patients. It affects the movement of the individual. Improper and untimely management may result in deformity of joints. Adopting *Ayurveda* medicines we can treat this disease effectively. We can consider *sandhi gata vata* as *vata kopa* which is in *asthi ashraya*.

**Objectives**

To evaluate the effect of *Kethakyaadi taila*<sup>7</sup> in reducing the symptoms in patients suffering from *Janusandhigata vata / OA Knee*.

**Materials and methods****Source of data:**

Patients diagnosed as *Jaanu sandhigata vata* are selected from O.P.D and I.P.D of Sri Dharmasthala Manjunatheswara Ayurvedic Hospital, Kuthpady, Udupi for study.

**Methods of collection of data:**

A Proforma prepared with all points including history taking, symptoms, and physical signs of *Janu sandhigata vata / OA Knee* and will be carried out as mentioned in conventional sciences. According to inclusion criteria, patients are selected and then subjected to a detailed complete history and clinical examinations.

**Design of study:**

It was a non-randomized open-label clinical study with a single group as an efficacy study. The patients were assessed by subjective and objective criteria by assessing *sandhi shula*, *prasarna akunchana pravriti sa vedana*, pain -visual analogue scale (VAS), swelling, range of movement, womac osteoarthritis index, walking - time required to cover 50 meters in seconds, time taken to do 5 sit-ups in seconds.

**Intervention:**

The patients in the group are given 50 ml *Kethakyaadi taila* orally on empty stomach in the morning for 14 days.

**Duration of treatment:**

14 days of intervention and 14 days of follow-up for the study.

**Observation period:**

Patient observed on before treatment (day 0), 7<sup>th</sup> day, after treatment (day 14), 21<sup>st</sup> day, and 28<sup>th</sup> day.

**Follow up period:**

*Sandhigata vata* patients who are coming in OPD are mostly chronic cases. Therefore follow up did on the 7<sup>th</sup> & 14<sup>th</sup> days after treatment.

**Inclusion criteria**

- Age groups between 30 years to 70 years (both ages inclusive) are selected irrespective of gender, religion & socio-economic status.
- Patients presenting with *sandhi shula*, pain on *prasarana and akunchana, shopha*

**Exclusion criteria:**

- Patients suffering from diseases like Psoriatic arthritis, Rheumatoid arthritis, Tuberculosis, Carcinoma, and SLE are excluded.
- Patients suffering from other systemic disorders.
- Patients who have undergone surgery for Osteo-arthritis.

**Assessment criteria:**

- Signs and symptoms of *Janu sandhigata Vata* (OA knee) are evaluated before, during, and after treatment on the baseline, 7<sup>th</sup> day, and 14<sup>th</sup> day
- Analysis of the subjective and objective parameters will be done.
- Visual analogue scale for pain
- Patients involved in research are analyzed with a visual analog scale which ranges from 0 to 100, where 0 means no pain and 100 means intolerable worst pain. Scoring is done before treatment, 7<sup>th</sup> day, after treatment, 21<sup>st</sup> and 28<sup>th</sup> day.
- According to the patient's condition, VAS is marked.

**OBSERVATION**

Incidence of *jaanu sandhigata vata* is more in old age people, this may be due to *dhathukshaya*. Compared to females, males are doing more strenuous works. The chance of incidence of *abhigata* and *dhathukshaya* may be more in males. The study was conducted in a local population, so 93.3 % are from *sadharana desa*. Patients included in the study are mainly middle-class people because middle-class peoples are more in this community. Patients are more concerned about the harmful effect of smoking that's why 96.7 % of patients don't have the habit of smoking. Patients are aware of the harmful effect of alcohol and tobacco so no one has the habit of alcohol intake and tobacco. 50 % of patients had the habit of tea or coffee intake. As the age progresses most people are aware of their health, thus 73.3 % of patients have the habit of taking *sama ahara*. In this study, 43.3 % of patients have the habit of taking *madhura rasa*. Excessive consumption of *madhura rasa* leads to *srothoabhishyanda*. Most of the people in this study follow *niramisha ahara*, *amisha ahara* especially *sushka mamsa* produces *vata aggravation*. This study reveals that 3.3 % of patients were doing proper *vyayama*. Most people were unable to do *vyayama*, due to the severity of pain in joints. 26.7 % have disturbed sleep, 3.3 % have no

sleep. Because of intense pain sleep is disturbed in some patients, some people may develop a lack of sleep, which aggravates *vata*.

## RESULTS

The result of each parameter was analyzed statistically with the paired t-test for objective criteria and the Wilcoxon sign rank test for subjective criteria. Statistical analysis of parameters was done. Swelling, tenderness, sandhishula, prasarana akunchanayoho apravrithi were assessed separately in the left and right knee. The remission of swelling was 60.63 % in the right knee and 65.21 % in the left knee. The remission of tenderness on the right knee was 62.74% and 50.47 % in the left knee. The remission of sandhi shula was 59.40 in the right knee and 61.29 % in the left knee. The remission of prasarana akunchanayoho apravrithi in the right knee was 50.83 % and in the left knee 56.66 %. The remission of pain assessment with pain visual analogue scale in the right knee is 59.59 % and in the left knee 65.31 %. Remission of womac score found to be 59.83%, range of movement in the right knee was 3.02 %, left knee 2.87%, time taken to walk 50 meters 38.27 %, time taken to do 5 situp was 14.53%.

Parameter	Mean			
	BT	AT	BT-AT	% Relief
Swelling-Right	3.133	1.233	1.900	60.63
Swelling-Left	3.066	1.066	2.000	65.21
Tenderness-Right	3.400	1.266	2.133	62.74
Tenderness-Left	3.500	1.733	1.766	50.47
Sandhi shula-Right	3.366	1.366	2.000	59.40
Sandhi shula-Left	3.100	1.200	1.900	61.29
Prasarana Akunchanayoho Apravruthi-Right	4.000	1.966	2.033	50.83
Prasarana Akunchanayoho Apravruthi-Left	4.000	1.733	2.266	56.66
Pain Visual Analogue Scale - Right	8.333	3.366	4.966	59.59
Pain Visual Analogue Scale -Left	8.166	2.833	5.333	65.31

Parameter	Standard deviation	Standard error mean	%	P-value
Womac score	BT: 16.07	2.93	59.83	0.000
	AT: 9.51	1.73		
Range Of Movement Right knee	BT: 4.16	0.75	3.02	0.000
	AT: 3.37	0.61		
Range Of Movement Left knee	BT: 3.40	0.62	2.97	0.000
	AT: 2.62	0.47		
Time taken to walk 50 metre	BT: 27.75	5.07	38.27	0.000
	AT: 27.30	4.98		
Time taken to do 5 sit up	AT: 77.44	14.13	14.53	0.000
	BT: 78.05	14.25		

## DISCUSSION

Different *kalpanas* are used in *jaanu sandhigata vata* among which *snehakalpna* is very effective because it is having the effect of *sneha* as well as drugs. *Taila can be used in vatavyadhi*<sup>8</sup> as well as in *sandhigata vata*. Plain *taila* can be used in *sandhigata vata* because of its properties. *Sneha* is included under *sandhigata vata chikitsa*. *Kethakyaadi taila* is explained in *Sahasrayoga* under *asthi gata vata*<sup>9</sup> context. Symptoms of *jaanu sandhigata vata* are similar to *asthi ashraya vatakopa* because of that reason *Kethakyaadi taila* is used in *jaanu sandhigata vata*. *Madhura rasa and madhura vipaka of Kethaki shows brimhana and sandhanakrit property*. *Tikta rasa used in vitiation of asthi dhathu*. *Kethaki is having rasayana and balya property which is having action on dhathukshaya* which is a common nidana of *jaanusandhigata vata*. *Bala and Atibala is having madhura rasa and madhura vipaka, madhura rasa is brimhana and sandhanakrit in action*. *Balya and brimhana property of Bala act in jaanu sandhi gata vata*. *Atibala shows balya, brimhana, vatavyadhihara property*. *Taila is having laghu, snigdha guna* which is opposite to the *guna* of *vata* and *vatahara* property. *Balya, shothohara, brimhana* properties reduce *dhathukshaya* which is a cause for *jaanu sandhi gata vata*. *Thushodaka is having deepana pachana* properties. *Taila is having anti-inflammatory*<sup>10</sup>, analgesic properties. anti-inflammatory<sup>11</sup> and analgesic<sup>12</sup> properties shown by *Kethaki*. antiosteoarthritic<sup>13</sup> property is present in *bala*. antioxidant<sup>14</sup> and anti-inflammatory<sup>15</sup> properties are present in *Atibala*.

## CONCLUSION

*Sneha kalpana* has a wide range of indications, especially in *Vatavyadhi*. Two similar references of *Kethakyaadi taila* can be seen in *Sahasryoga* and *Ashtanga sangraha*. As per the references, *Kethakyaadi taila* can be effectively used in *asthi ashraya vata kopa*. All ingredients of *Kethakyaadi taila* are useful in *jaanu sandhi gata vata*. *Taila* alone is indicated in *vata vyadhi*. When *taila* is processed with chosen drugs of *Kethakyaadi taila*, its efficacy increases many folds. This clinical study conducted in patients of *jaanu sandhi gata vata* showed statistically significant improvement in both subjective and objective parameters.

## Reference

1. Sharma P V. Caraka Samhita text with English Translation vol 1. Varanasi: Chaukhambha

- orientalia;2010 p.86, Pp.544
2. Sharma P V. Caraka Samhita text with English Translation vol 1. Varanasi: Chaukhambha orientalia;2010 p.87, Pp.544
  3. Govindan P M.Ashtangahridayam chikithsasthana.Kodungallur: Devi bookstall;2012 p.590, Pp.637
  4. Govindan P M. Ashtangahridayam nidanaasthana.Kodungallur: Devi bookstall;2008 p.274
  5. Govindan P M.Ashtangahridayam sutrasthana,17ed.Kodungallur: Devi book stall:2013 p. 283, Pp.664
  6. Sharma P V. Caraka Samhita text with English Translation vol II.Varanasi:Chaukhambha orientalia;2010 p.470,Pp.879
  7. K. Nishteswar, R.Vidyanath, editor. Keraliya tradition of Ayurvedic Treatment, Sahasrayoga; Taila prakarana: Chapter 3, Verse 5. Varanasi: Chowkhamba Sanskrit series office;2008;p.112.Pp.540
  8. P V Sharma. Caraka Samhita text with English Translation vol 1. Varanasi: Chaukhambha orientalia;2010 p.89, Pp.544
  9. K. Nishteswar, R.Vidyanath, editor.Keraliya tradition of Ayurvedic Treatment, Sahasrayoga; Taila prakarana: Chapter 3, Verse 5. Varanasi: Chowkhamba Sanskrit series office;2008;p.112.Pp.540
  10. <http://www.healthline.com/nutrition/sesame-oil-benefits>
  11. <http://scialert.net/fulltext/?doi=ijp.2010.311.314>
  12. A. L. Udupa, N. Ojeh, G. Gupta, et al. "Analgesic activity of Pandanus fascicularis Lam., Pharmacologyonline, vol. 2, Pp.837-840,2011
  13. <https://ijapr.in/index.php/ijapr/article/view/1003>
  14. <https://www.tandfonline.com/doi/full/10.3109/13880200903110769>
  15. [https://www.researchgate.net/publication/40441137\\_In-vitro\\_anti-arthritic\\_activity\\_of\\_Abutilon\\_indicum\\_Linn\\_Sweet](https://www.researchgate.net/publication/40441137_In-vitro_anti-arthritic_activity_of_Abutilon_indicum_Linn_Sweet)