

## TO EVALUATE THE EFFECT OF UPANAHA SWEDA IN JANUSANDHIGATA VATA WITH VACHADI AND KOLADI YOGAS A COMPARATIVE CLINICAL STUDY

Desai Sucheta<sup>1</sup>, Desai Ananta<sup>2</sup>, Borannavar Shaila<sup>3</sup>

<sup>1</sup>P.G. Scholar, <sup>2</sup>HOD & Professor, <sup>3</sup>Guide & Associate Professor,  
Dept of Panchakarma, Govt. Ayurveda Medical College, Bengaluru, Karnataka, India

Corresponding Author: [suchetateggi@gmail.com](mailto:suchetateggi@gmail.com)

<https://doi.org/10.46607/iamj1209082021>

(Published Online: August 2021)

### Open Access

© International Ayurvedic Medical Journal, India 2021

Article Received: 22/07//2021 - Peer Reviewed: 02/08/2021 - Accepted for Publication: 03/08/2021



## ABSTRACT

The present scenario of lifestyle is prone to cause many lives deteriorating conditions. *Sandhigatavata* is one among the *Vatavyadhi* and the commonest articular disorder affecting the middle-aged, obese, and elderly population. The advancement in working pattern, lifestyle & age-factor, all together have become a prime cause for aggravation of *Vata*, which accelerates *Dhatukshaya* (depletion of tissues). *Sandhigatavata* can be correlated with osteoarthritis (OA) which is one such chronic, degenerative, inflammatory disease that has a great impact on the quality of the life of an individual. OA poses a huge hindrance in the day-to-day activities of the sufferer like walking, dressing, bathing etc. As per *Ayurveda*, it is caused due to localized accumulation of aggravated *Vata* in joints, which leads to *Shula*, *Sotha*, *Vatapoornadritisparsha* and functional disability of affected *Sandhis*. If not treated in time, the disease makes man disable. According to epidemiology the prevalence of osteoarthritis in India is 22-39%. Different treatment modalities like *Snehana*, *Swedana*, *Lepa*, *Bandhana*, *Agni Karma* and *Raktamokshana* are emphasized in *Ayurveda* to provide better relief from the pain and swelling and restore mobility; for the management of these symptoms, *Swedana* is the most convenient & best procedure. So, the present study was aimed to assess clinically the effect of *Upanaha Swedas* in the management of *Janusandhigatavata*. **Objectives:** To evaluate and compare the efficacy of *Vachadi Upanaha Sweda* and *Koladi Upanaha Sweda* in the management of *Janusandhigatavata*.

**Materials and Methods:** It was a randomized comparative clinical study; total 40 patients were divided into 2 groups as 20 in each. In Group A, patients were treated with only *Vachadi Upanaha Sweda* and other group patients were treated with *Koladi Upanaha Sweda*. **Results:** Statistical analysis revealed that both the interventions were

effective in reducing all the signs and symptoms of *Janusandhigatavata*, however in parameters *Shotha*, tenderness and walking distance, *Koladi Upanaha Sweda* showed better response than *Vachadi Upanaha Sweda*. **Conclusion:** There is a significant effect of *Koladi Upanaha Sweda* over *Vachadi Upanaha Sweda* in *Janusandhigatavata* both clinically and statistically.

**Keywords:** *Janusandhigatavata*, knee osteoarthritis, *Koladi Upanaha*, *Vachadi Upanaha*, *Swedana*.

## INTRODUCTION

*Panchakarma* is the specialized branch of *Ayurveda* which has got the importance in its own special way in preventive as well as curative aspects of the diseases. Even though *Panchakarma* includes the mainstream procedures like *Vamana*, *Virechana*, *Basti*, *Nasya* and *Raktamokshana*, the *Upakarmas* like *Snehana* and *Swedana* has also got its impact very strongly in treating the diseases. As said in treatises *Swedana* is considered one of the important aspects in *Shadvidha Upakrama*. As *Pradhana Karma* numerous varieties of *Swedana* can be adopted according to the disease condition. Among them *Upanaha Sweda* is the variety mentioned by our *Acharyas* which is mainly indicated in *Vataja* disorders. *Sandhigatavata*<sup>1</sup> or Osteo-arthritis is a type of *Vatavyadhi* which mainly occurs in *Vridhdhavastha* due to *Dhatukshaya* and is the commonest form of articular disorder. It limits everyday activities such as walking, dressing, bathing etc. thus making patient disabled/handicapped. *Vatavyadhi*, affecting *Marmasthisandhi*<sup>2</sup> and its occurrence in old age makes it *Kastasadhya* for the *Chikitsa*. Till date no medicine is available which prevents, reverses, or blocks the growth of this disease. *Acharya Charaka* defined it as a disease with the symptoms of *Shoola*, *Shotha*, which is palpable as an air-filled bag (*Vatapoornadritisparsha*) with pain on flexion & extension of affected joint.<sup>3</sup> *Sandhivata* is accepted by *Chakrapani* as *Gulphavata* or *Sandhigatavata*. In Allopathic science it can be correlated with osteoarthritis. It's a Degenerative joint disorder that occurs when flexible tissue at the end of a bone wears down.<sup>4</sup> According to Epidemiology the prevalence of OA in India is 22-39%. A common misconception is that OA is solely due to wear and tear, since OA is typically a disease of persons in the fifth decade and beyond, but OA is not the result of a bland degenerative process; rather, OA

involves both degenerative and regenerative processes. Radiographic evidence of this disease is present in most persons by 65yrs of age & in about 80% of persons more than 75yr of age.<sup>5</sup>

The major risk factors associated with Knee joint are Age, female sex, obesity, occupational knee bending & making it an important cause of disability. There is no satisfactory, comprehensive & time bound treatment schedule for its management at present. A number of analgesics and anti-inflammatory drugs are available for its betterment. However, a permanent relief is not provided by any of these and the same is still under research works. Even the surgical treatment does not provide complete relief.<sup>6</sup>

*Acharyas* have given great importance to *Swedana Karma* in the management of *Janusandhigatavata*. Different modalities of treatment have been explained in the *Shastras*. *Sushruta Samhita* and *Chakradatta* have given the following methods of treatment for *Sandhigatavata* - *Snehana*, *Upanaha*, *Agnikarma*, *Bandhana*.<sup>7,8</sup> Among different types of *Vatopakramas*, *Bahyasnehana* and *Swedana Karma* are said to be the best *Sthanika Chikitsa* to pacify *Vata* in localized area. Here the use of *Upanaha* as *Swedana Karma* may prove more effective for quick relief from symptoms and early mobility of the patients, which is the main purpose of this study. So, here *Upanaha* with *Charakokta Vatahara Koladi Choorna*<sup>9</sup> and *Vagbhatokta Vachadi Choorna*<sup>10</sup> have been selected for comparative study, which may prove to be efficacious in reducing the pain, swelling, stiffness and restore the normal movements of Knee joint.

## OBJECTIVES OF THE STUDY:

1. To evaluate the efficacy of *Vachadi Upanaha Sweda* in *Janusandhigatavata*.

- To evaluate the efficacy of *Koladi Upanaha Sweda* in *Janusandhigatavata*.
- To compare the efficacy of *Vachadi Upanaha Sweda* and *Koladi Upanaha Sweda* in *Janusandhigatavata*.

**MATERIALS AND METHODS:**

**Source of Data:** The patients who attended OA camp conducted by the *Panchakarma* OPD at SJIIM Hospital & GAMC Bengaluru, with complaints of Knee joint pain and swelling were screened. Out of these, 40 patients of *Janusandhigatavata*, who fulfilled the below mentioned inclusion criteria were selected for the study.

**Selection Criteria:**

**Diagnostic criteria:**

The diagnosis was mainly based on these clinical features:

- Sandhi shoola*
- Sandhi shotha*
- Sandhi atopa*
- Prasaranaakunchanayovedana*
- Tenderness in knee joint

The patients were selected based on the Inclusion and Exclusion criteria.

**Inclusion Criteria:**

- Patients fulfilling the diagnostic criteria of *Janusandhigatavata*.
- Patients between age group of 40-70 years.
- Patients fit for *Sthanika Swedana Karma*.

**Exclusion Criteria:**

- Patients suffering from any inflammatory arthritis with diseases such as Gouty Arthritis, Rheumatoid Arthritis, fractures.
- Patients with skin diseases and open lesions on Knee joints.

**STUDY DESIGN:** The study design set for the present study was a “randomized comparative clinical study”. A minimum of 40 patients, fulfilling the inclusion criteria of *Janusandhigatavata* were selected for the study irrespective of sex, religion, occupation and economic status and they were randomly distributed into 2 groups of 20 patients each.

**Table 1:** Showing Intervention:

	GROUP A	GROUP B
<i>Poorva Karma</i>	<i>Sthanika Abhyanga</i> with <i>Tila Taila</i>	<i>Sthanika Abhyanga</i> with <i>Tila Taila</i> .
<i>Pradhana Karma</i>	<i>Upanaha Sweda</i> with <i>Vachadi Yoga</i> for 15 days	<i>Upanaha Sweda</i> with <i>Koladi Yoga</i> for 15 days
<i>Paschat Karma</i>	<i>Upanaha</i> was retained for 12 hours and after that it was removed, and the part was cleaned with warm water.	

Follow up on: 15<sup>th</sup>Day, Study duration: 15 Days

**COLLECTION OF DRUGS:** *Choorna Yogas* were collected from Amruta Kesari Ayurveda Pharmacy, Mamulpet Bengaluru.

Modification: Here in this study *Amisha* was replaced

by *Masha* and *Kinwa* was replaced by vinegar according to the availability. Vinegar was used as vehicle for mixing powder to make the thick paste of *Upanaha Sweda* as per requirement.

**Table 2:** Showing Ingredients of *Vachadi Upanaha* and *Koladi Upanaha Sweda*

Group(A): <i>Vachadi Upanaha</i>	Group(B): <i>Koladi Upanaha</i>
<i>Choornas of Vacha, Shatavaha, Devadaru, Rasna, Eranda, Masha and Yava</i> are taken in equal quantity. <i>Saindhava lavana</i> 10 gms, <i>Tilataila</i> 20 ml, Vinegar- Q.S	<i>Choornas of Kola, Kulattha, Suradaru, Rasna, Masha, Atasi, Tila, Eranda, Kushta, Vacha, Shatapushpa and Yava</i> are taken in equal quantity. <i>Saindhavalavana</i> 10 gms, <i>Tilataila</i> 20 ml, Vinegar -Q.S

**Poorva Karma:** Collection of essential materials required for *Upanaha Sweda*, Preparation of the medicine, Preparation of the patient. Before commencement of the treatment an informed consent

was taken from the patients, and the patients were evaluated for both Subjective and Objective parameters and grading noted.

**PROCEDURE OF UPANAHA SWEDA:**

**Table 3:** Materials required for the study:

Sl.No	Name of the Material	Quantity
1	Upanaha Choorna Yogas – Vachadi (Group A) and Koladi (Group B)	50 – 100 gms
2	Tila Taila	20 ml
3	Saindhava Lavana	10 gms
4	Vinegar	QS
5	Saucepan	1
6	Spatula	1
7	Eranda Patra	QS
8	Bandage cloth	2
9	Goniometer	1
10	Gas stove	1
11	Stopwatch	1
12	Small steel bowls	2
13	Water bath to heat	1
14	Small towel	2-4

**Preparation of the medicine:** Powder of each drug was taken according to the required quantity and then a paste of these powdered drugs was prepared by adding *Saindhava Lavana*, *Tila Taila* and Vinegar. This paste was taken in a small bowl and warmed gently by placing the bowl in a water bath. *Tila Taila* was taken separately in another bowl, luke warmed and kept ready for *Abhyanga*.

**Preparation of the patient:** The patient was asked to sit comfortably on a chair, exposing the knee joint to be tied with *Upanaha Dravya*. The affected knee joint

was cleaned with a piece of cotton dipped in warm water and then the area was wiped dry with a towel. *Sthanika Abhyanga* with *Sukhoshna Tila Taila* was done.

**Pradhana Karma:** The prepared paste was applied i.e approximately about 2-3 mm thickness and spread uniformly on the affected knee joint. *Eranda Patra* were placed over the paste to cover the area properly. After this the knee was bandaged which was not too tight nor too loose. The procedure was done in the evening and the *Upanaha* was retained for a period of 12 hours.

		
<p><b>Figure 01:</b> Showing application of <i>Upanaha</i> paste over knee joint</p>	<p><b>Figure 2:</b> Showing <i>Bandhana</i> of <i>Upanaha</i></p>	<p><b>Figure 3:</b> Showing <i>Bandhana</i> of <i>upanaha</i> to B/L knee joints</p>

**Paschat Karma** – The next morning, the bandage along with the paste was removed and the knee joint was washed with lukewarm water and patted dry. The

procedure was done for 14 consecutive days in both the groups. Follow up – The patient was advised to report

on the 15<sup>th</sup> day for follow up counting from the day the treatment schedule started.

**ASSESSMENT CRITERIA:** Subjective parameters and objective parameters were used to assess the clinical response in both the groups. The patients were assessed on 1<sup>st</sup> day (before starting the treatment) and 15<sup>th</sup> day (after completion of treatment). Subjective Parameters: Pain, Tenderness, Swelling. Objective Parameters: Crepitus, Range of movements (Goniometric examination), Time taken to walk 21 meters distance on even ground.

**OBSERVATIONS:** A total number of 80 patients were screened for the study, out of which 50 patients met the inclusion criteria. A total number of 50 patients were registered for the present study. 25 patients were

registered in group A, 5 patients dropped out in the middle, while 25 patients were registered in Group B, and 5 patients dropped out in the middle. The data of 10 patients who dropped out of the study have not been included here.

**Statistical Interpretation:**

Based on unpaired t test, the following observations were recorded.

After treatment - On comparing the results between Group A and Group B, the difference between the two groups was statistically significant w.s.r. to *Shotha* and time taken to cover 21 metre distance whereas the difference between the two groups was not significant w.s.r. to the rest of the parameters.

**Table 4:** Showing Overall Effect of Treatments in the study:

Characteristics Signs and Symptoms	GROUP-A			GROUP-B		
	Mean score		% of relief	Mean score		% of relief
	BT	AT	BT-AT	BT	AT	BT-AB
Pain ( <i>Janu Shula</i> )	2.20	1.25	43.63	2.60	1.15	55.76
Swelling ( <i>Janu Shotha</i> )	2.40	1.10	54.16	2.15	0.50	76.74
Tenderness	1.90	1.05	44.73	2.35	1.20	48.93
Crepitus	1.05	1	5	1.20	1	16.66
Range of movement	1.42	0.84	45.84	1.84	1	45.65
Walking time to cover 21 mts of distance (sec)	18.60	15.65	15.86	19.25	15.20	21.03

The age limit of the subjects in the study was 40 to 70 years. The incidence was highest in the age group 60 – 90 years (55%), females (72.5%), married (100%), middle class (52.5%), post menopausal period in women (83%), *Vatapittaja Prakriti* (37.5%), bilateral knee joints (60%) and chronicity of disease more than 2 years (37.5%). All 40 patients (100%) had *Sandhi Shoola* and *Savedana Prasarana Akunchana Pravritti*, 34 patients (85%) had *Sandhi Atopa*, 31 patients (77.5%) had *Sandhi Shotha*, and 24 patients (60%) had *Sandhi Graha*.

**Table 5:** Showing Overall percentage improvement in Clinical Parameters

Remarks	Group A		Group B		Total	
	At	%	At	%	At	%
Marked Relief	02	10	10	50	12	30
Moderate Relief	06	30	08	40	14	35
Mild Relief	12	60	02	10	14	35
No Relief B	00	00	00	00	00	00

**DISCUSSION**

Irrespective of the stages of *Sandhigatavata* the constant clinical symptom will be pain and this pain deprives the access for movement in the individuals whereas the same leads to severe pain when attempted to. Along with this the pain will get worse when there

is an association of effusion. Hence in order to deal with the primary complaints like pain and effusion *Upanaha Sweda* is an apt choice in *sandhigatavata* which gives instant relief from pain as well as effusion in the patients. In the present study, *Sagni* and *Snigdha* type of *Upanaha Sweda* is used. Initially, *Sthanika Abhyanga* is done with *Tila Taila* on the affected Knee



joint. *Snehana*, whether used externally or internally is said to pacify *Prakupita Vata*. Here, *Tila Taila* is used for *Abhyanga* as well as for preparing the paste for *Upanaha* helps in alleviating the aggravated *Vata*. Among the *Chaturvidha Sneha*, *Acharya Charaka* has mentioned that *Taila* is predominantly *Vataghna* <sup>[11]</sup>. As seen earlier, *Tila Taila* is best *Vatahara* because of its properties like *Madhura*, *Tikta*, *Kashaya Rasa*, *Guru*, *Snigdha Guna* and *Ushna Veerya*. So, use of *Tila Taila* helps in doing the *Samprapti Vighatana* (reduces *Srotoriktata*) to some extent. The *Snigdha Guna* of *Tila Taila* helps in reducing *Rookshata* caused due to *Vata Prakopa* and increases *Snehadi Gunas* in the Knee joint. This helps significantly in restoring the joint mobility. Also, *Taila* serves as a lipoidal medium to carry the potency of the drugs (*Vachadi and Koladi*) by penetrating the epidermis and exerts immediate analgesic and anti-inflammatory effect. *Sneha* also prevents *Upanaha* from drying up and causing skin irritation. So, *Upanaha* can be retained for a longer duration compared to other *Lepas*. *Saindhava Lavana*, because of its *Sookshma Guna* helps the *Veerya* of the drugs to penetrate into *Sookshma Srotas* and deeper tissues and pacify the *Doshas*. Use of Vinegar helps to permeate the active principles from one medium to another. *Acharya Sushruta* explains the mode of action of *Dravyas* as follows- The *Veerya* of *Dravyas* applied externally on the skin is absorbed by the *Tiryak Dhamanis* which are attached to the *Romakoopas*. Through these *Romakoopas*, the *Veerya* of the *Dravyas* enter into the body after undergoing absorption (*Paka*) through *Bhrajaka Pitta* present in the skin thus pacifying the *Doshas*. Warming the paste before application and *Ushna Veerya* of the *Dravyas* used in *Upanaha* help in relaxation of the smooth muscles and local vasodilatation. This increases the blood circulation in the area facilitating supply of oxygen and nutritive materials to the tissues and removal of waste products. Also, the sweat glands of the skin are stimulated which results in increased excretion of liquefied vitiated *Doshas* from the body leading to *Srotoshodhana*. Thus, *Vatahara Chikitsa* in the form of *Snehana* and *Swedana* helps in relieving the symptoms. In addition, it hinders the progression of degenerative changes of the Knee joint.

### PROBABLE MODE OF ACTION OF UPANAHA SWEDA:

In general, *Swedana* therapy is mainly responsible for these activities in body

- Increased metabolic activity
- Increased blood flow
- Stimulation of neural receptors in the skin or tissues

The extent of these activities depends on various factors like

- a. The size of the area heated
- b. The depths of absorption
- c. The duration of heating
- d. The intensity of heat
- e. The method of application

Due to local rise of temperature, metabolic wastes are removed through increased blood circulation and sweat. The secretion of sweat is under nervous control, especially autonomous. Thus, sudation (*Swedana*) can bring about changes indirectly on the autonomic nervous system and the heat may reduce pain by acting over nerve stimuli. The application of heat over joint promotes local circulation and metabolic activities and opens the pores of the skin to permit the transfer of medicaments and nutrients towards the affected site. On this basis, it can be assumed that the oil used in *Upanaha* served as a lipoidal medium for penetration of the drug molecules and exerts an immediate anti-inflammatory effect. Moreover, heat applied with *Upanaha* increases the local circulation and thus enhances the rate of drug absorption.

### CONCLUSION

*Janusandhigatavata* is a *Vatavyadhi* which is one among *Ashta Maharoga*. *Sleshakakapha Kshaya* and *Vataprakopa* due to *Vataprakopaka Ahara Vihara*, *Dhatukshaya*, *Sthoulya* and *Vardhakaavastha* have got a major role to play in the manifestation of *Janusandhigatavata*. By comparing the overall response for the treatment, it can be concluded that *Vachadi and Koladi Yogas*, both proved to give good results in *Sandhigatavata*. *Koladi Upanaha Sweda* proved to be more effective than *Kushtadi Upanaha Sweda*. When analysed statistically, both the groups showed similar

effects in reducing all the signs and symptoms of *Janusandhigata*. However, in parameters like *Shotha* and time taken to walk and cover 21 meters distance Group B patients showed better response than Group A patients. Thus, it can be concluded on the basis of results as well as overall response for the treatment that *Koladi Upanaha Sweda* is more effective over *Vachadi Upanaha Sweda* in the management of *Janusandhigata* both clinically and statistically.

## REFERENCES

1. Agnivesha: Charaka Samhitha with Ayurveda Dipika Commentary, Acharya Jadavji Trikamji, Choukambha publication, Varanasi, Chikitsa Sthana, 2000;28.
2. Textbook of Biochemistry, Dinesh Puri, B I Churchill living stone PVT Ltd, New Delhi, 2002; 849.
3. Tripathi Brahmanand, editor Charakasamhita With hindi translation 37 vol 28, Chaukhamba Varanasi, p-940.
4. Keuttner KE, Goldberg VM. Introduction. Keuttner KE, Goldberg VM, editors. Osteoarthritis disorders. Rosemont IL: American Academy of Orthopaedic Surgeons, 1995.21–5.
5. Sharma M K, Swami HM, Bhatia V, Verma A, A Epidemiological study of co-relates of Osteo- Arthritis in geriatric population.
6. Textbook of Davidson's principles and practice, Editors Stuart H Raiston, Ian D Penman, Mark WJ Strachan, Richard P Hobson, 23<sup>rd</sup> edition, Elsewhere Ltd 2018;1010
7. Sushruta, The Sushruta Samhita, with the Nibandha Sangraha Commentary of Shri Dalhanacharya, edited by Y.T.Acharya, Nirnaya Sagar Press, Bombay, 1915, Chikitsa Sthana 4/8, Page – 333.
8. Sri Chakrapanidatta, Chakradatta with the Bhavarthasandipini Hindi Commentary by Sri Jagadishvaraprasad Tripathi, edited by Bhisagratna Pt. Brahmashankar Mishra, Choukambha Press, Varanasi, 2012, Vatavyadhi Chikitsa Adhikara, Shloka no. 9, Page – 183.
9. Agnivesha, The Charaka Samhita, revised by Charaka and Dridhabala with Ayurveda Dipika Commentary of Chakrapanidatta, edited by Y.T.Acharya, Nirnaya Sagar Press, Bombay, 3<sup>rd</sup> edition, 1941, Sutra Sthana 3/18, Page – 28.
10. Vagbhata. Ashtanga Hridaya – with the commentaries of Sarvanga Sundara of Arunadatta and Ayurveda

Rasayana of Hemadri, Edited by Bhisagacharyaharishastri Paradakara Vaidya, 9<sup>th</sup> edition. Varanasi: Chaukhamba Orientalia 2005, Sutrasthana 17/2,3.

11. Agnivesha, The Charaka Samhita, revised by Charaka and Dridhabala with Ayurveda Dipika Commentary of Chakrapanidatta, edited by Y.T.Acharya, Nirnaya Sagar Press, Bombay, 3<sup>rd</sup> edition, 1941, Sutra Sthana 13/15, Page – 82.

**Source of Support: Nil**

**Conflict of Interest: None Declared**

How to cite this URL: Desai Sucheta et al: To Evaluate The Effect Of Upanaha Sweda In Janusandhigata Vata With Vachadi And Koladi Yogas A Comparative Clinical Study. International Ayurvedic Medical Journal {online} 2021 {cited August 2021} Available from: [http://www.iamj.in/posts/images/upload/1675\\_1682.pdf](http://www.iamj.in/posts/images/upload/1675_1682.pdf)