

## STUDY THE EFFICACY OF KARPASASTHYADI TAILA MATRA BASTI IN SANDHIGATA VATA (OSTEO ARTHRITIS) WITH SPECIAL REFERENCE TO JANU SANDHI (KNEE JOINT)

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### ABSTRACT

In Ayurveda the disease Sandhigata Vata resembles with OA. Modern medicines like Non-steroidal anti inflammatory drugs (NSAIDS) are mainly prescribed for its treatment. These medicines provide symptomatic relief, but the underlying pathology remains unchecked. In Ayurveda, application of Bahya Snehan (External oleation), Swedana (fomentation), Abhyantara Tikta Snehapana (medicated ghee), Basti (medicated enema) treatment are prescribed in the management of Sandhigata Vata. Basti is prime treatment for various vata disorders which includes Sandhigat vata. Karpasasthyadi Taila mentioned in Charak chikitsasthan for management of various Vata related disorders.<sup>1</sup> **Aim:** To evaluate the efficacy of Karpasasthyadi Taila Matra Basti<sup>2</sup> in Sandhigata vata. **Materials & Method:** In the present study, 30 patients of Sandhigata Vata were given Karpasasthyadi Taila Matra Basti . Subjective assessment by classical symptoms Sandhi Shoola, Sandhi Shotha, Vatapurna Druti Sparsha, Graha (Restricted movement), Oxford pain chart, WOMAC (Western Ontario and McMaster Universities Osteoarthritis Index) index of O.A. for knee by Visual analog scale, Walking time for 10 meters were graded according to their severity. **Result:** Significant (P<0.05) result were found in all cardinal symptoms of Sandhi Shoola, Sandhi Shotha , Vatapurna Druti Sparsha, Graha (Restricted movement). **Conclusion:** Karpasasthyadi Taila Matra Basti was significant in the subjective symptoms of Sandhigata Vata.

**KEYWORDS:** Sandhigat vata, Osteoarthritis, Karpasasthyadi Taila, Matra Basti.

### INTRODUCTION

In today's present scenario it has become really important for every one to maintain a physical and mental balance. With so much of pollution in environment, food adulteration, untimely working hours and unhealthy life style it has become mandatory for everyone to look after our health. Leading an improper lifestyle or consuming stale foods/ cold foods/ processed foods/ fermented foods and either

doing over exercises or not doing any exercises at all results in vitiation of doshas mainly vata dosha.<sup>3</sup> The vital force, vata is concerned with all sort of movements ranging from joint and muscle movements to the movements at the cellular level. When this vata is well harmonized functions in a balanced manner, it results in healthy joints. When there is an imbalance or disharmony, it results in various kinds of ailments. Ayurveda describes old age as

vata age, which is why a majority of patients suffering from *Sandhigata Vata* fall in this age group. *Sandhigata Vata* vyadhi commonly involves major joints namely hip, knee, shoulder etc. Out of these Janu sandhi is commonly involved since it is weight bearing joint. Janusandhigata Vata presents with symptoms of shool(pain), shoth(edema), *chankramana kashtata* (pain during movement) etc. According to modern science, the disease is managed by NSAID'S, analgesic drugs corticosteroids etc. Potent analgesic and anti-inflammatory drugs run the risk of producing side effects like gastric erosion, hepatic and nephro toxicity etc. Even surgery statistically reveals to have considerable failure rate in knee replacement. It's a limitation in contemporary science to provide a comprehensive effective management. So research works in Ayurveda has evident scope in this condition. In Charaka Samhita for Ashti pradoshaja vikaras, Panchakarma treatment is described.<sup>4</sup> Among these Pancharma, Basti chikitsa is regarded as the prime treatment modality. It is considered as the best treatment for vata dosha.<sup>5</sup> It is explained that Matra basti can be given to almost everybody, in all the seasons and it can be given with maximum ease and has no complications thereafter.<sup>6</sup> In ayurvedic samhitas different siddhataila has described to treat *Sandhigata vata*. Karpasasthyadi taila (Charak samhita-Vatavyadhi chikitsa adhyaya) is one of them. Due to increased prevalence of this disorder it has become a major problem and burden for society, as it directly reduces the working potency resulting in dependency. All the above factors inspired me to study the effect of Karpasasthyadi

taila matra basti in *Sandhigata Vata* with special reference to Janu Sandhi.

**AIM & OBJECTIVES:** - Study the efficacy of Karpasasthyadi taila matra basti in sandhigata vata with special reference to janu sandhi.

**MATERIAL AND METHODS:-**

The objective of the dissertation is to study the efficacy of Karpasasthyadi taila matra basti in sandhigata vata with special reference to janu sandhi.

**Clinical study** – Patients having janusandhigat vata were selected for the research work. Total 30 Patients were selected. Clinical trials were conducted on them. Clinical Data obtained from the trial was analyzed with pair t -test method & the results are presented.

**SELECTION OF PATIENTS:** - All patients of Janu Sandhigat Vata who will be attending OPD of tarachand hospital, Pune, will be selected irrespective of sex, religion, economical status, education, occupation etc

**INCLUSION CRITERIA:**

1) Patients having textual symptoms of *Sandhigata vata* with special reference to janu sandhi will be taken as a subject to study.<sup>7</sup>

- Sandhi Shoola(Joint pain)
- Sandhi Shotha(Joint effusion)
- Vatapurna Druti Sparsha
- Graha (Restricted movement)

2) Sex: Male & Female

3) Age: 40 to 70Years.

4) Patient who will give written consent.

**EXCLUSION CRITERIA:**

- Patients with other joints deformities or diseases which are not related to Janu Sandhigata vata, such as Amavata, Vatarakta.

- Fracture of Knee joint, and needs surgical care will be excluded.
- Auto immune diseases –Ankylosing Spondylitis
- Neoplasm
- Permanent joint damage.
- Known cases of Cardiac disease, Pulmonary TB, Pregnancy, DM, Paralysis, HIV, Neurological disorder etc.
- Having severe crippling deformity.
- Age <40 yrs. &>70 yrs.

#### WITHDRAWAL CRITERIA:

- a) Occurrence of Serious adverse events.
- b) The investigator feels that the protocol has been violated or Patient has become incorporative.
- c) Further continuation of the study is likely to be detrimental to health of the patients.
- d) Patients absent for continuous 2 follow-ups will be considered as dropped out from this project.
- e) The patients are not willing to continue the trial.

#### Method of administration

1. Form:Matra Basti.
2. Dose: 60ml.
3. Kala:Just after lunch once a day.
4. Duration of therapy: For 9 days
5. Follow up: 9 day, 15<sup>th</sup>& 21<sup>th</sup> days.

**Procedure:** - **Purvakarma**- Sthanik snehan (Local oleation) and Swedana (Medicated fomentation) **Position**- left lateral **Pradhankarma**- Basti-dana **Pashchatakarma**- Tadana karma and Uttana position.

#### PREPARATION

OF

#### KARPASASTHYADI TAILA:

Karpasasthyadi taila prepared as per described in Ayurvedic samhita, by Following methods.

The essential components

- 1) Kwath Dravyas-
  - a) Karpasasthi- Gossypium herbaceum Linn.
  - b) Kulattha- Dolichos biflorus Linn.
- 2) Sneha:- Tila taila- Sesamum indicum Linn.

Karpasasthyadi Taila was prepared in following two steps

First decoction was prepared by adding water to kwath dravya as per Sharangadhar Samhita.<sup>8</sup>

Then to the decoction sneha dravya was added, boiled and stirred well. When all the Drava dravya have evaporated and samyaka sneha siddhi lakshan<sup>9</sup> observed, madhyama snehapaka was done.

#### Method of preparation of Matra Basti

Karpasasthyadi taila 1.5 Pal

Prakshepa- Shatavha- 4 Mashak

Saindhav - 4 Mashak

To the taila prakshapa was added in given amount and matra basti was prepared.<sup>10</sup>

#### Methods of assessment of symptoms :

**Assessment of Shotha:** Shotha can be measured. So it is an objective parameter.

In this study shotha of janusandhi was measured at 3 levels in cm.

Level A – At the upper level of joint,

Level B - At the centre of joint,

Level C – At the lower level of joint

All measurements were taken. Mean calculated & Effect of a trial is calculated in terms of difference between the Shotha before treatment and after treatment.

**Assessment of Graha** – It is a subjective parameter which can sometimes be objective. Because when a patient can move his leg up to a certain limit and then suddenly further movement of the joint is not possible because of the stiffness then it is easy to decide the grade of the stiffness.

The angle of the joint up to which the joint moves can be measured for assessment in such condition. But when a patient feels stiffness in all positions of the joint and can move it anyhow but with difficulty then how can angle be measured?

Moreover in the case of amavata Graha markedly varies with time to time and also in the nature. So to avoid the fallacies and to make it an objective criterion following gradation was adopted-

Grade	Condition
No Stiffness	0
Mild Stiffness	1
Moderate Stiffness	2
Severe Difficulty due to Stiffness	3
Severe Stiffness more than 10 min	4

Patients were grouped accordingly before & after treatment. Proper calculations were done as per that of pain chart and assessment of efficacy was done.

**Assessment of Crepitus/Vatapurna Druti Sparsha** – It is done with following gradation -

Grade	Condition
0	No Crepitus
1	Palpable Crepitus
2	Palpable Audible Crepitus
3	Always Audible

Patients were grouped accordingly before & after treatment. Proper calculations were done as per that of pain chart and assessment of efficacy was done.

cates complete relief while 100 indicate severe pain other symptoms, patient were asked to grade their severity of pain and allied complaints. Marking was defined accordingly in number.

**Visual analogue scale-** There is 100 mm long scale for assessment of overall relief. There is '0' marking on left hand side and '100' marking on right hand side. '0' indi-

**VAS**  
**0                          50                          100**  
**VISUAL ANALOG SCALE: -**

Observation	Visit 1	Visit 2	Visit 3	Visit 4
VAS Score				

Calculation were done according to following formula

Where, Ibt - is intensity of Symptom before treatment, & Iat is intensity of Symptom after treatment.

Percentage of relief –  $\frac{(Ibt - Iat)}{Ibt} \times 100$

**Assessment of Shoola (Pain) :**

Sandhihoola	Grade
None	0
Mild	1
Moderate	2
Severe	3

Percentage pain/Symptoms relief= (IPo–IPL)/ IPo X 100

Where, IPo - is intensity of Symptoms before treatment & IPL - is intensity of Symptoms after treatment.

Symptoms	BT	AT
Shool	1.98	0.67
Shotha	30.77	30.63
Vatapurnadrytisparsha	1.2	0.5
Graha	1.48	0.43
VAS	79	38.3
OXFORD PAIN	2.63	1.0
Walking Time	16.17	13.23
Overall assessment Score	133.23	84.76

### RELIEF IN PERCENTAGE

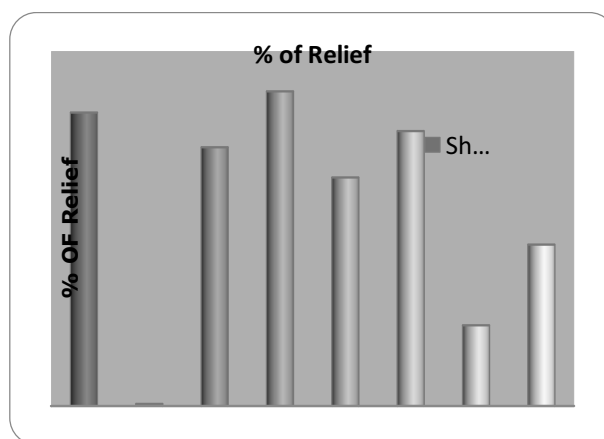
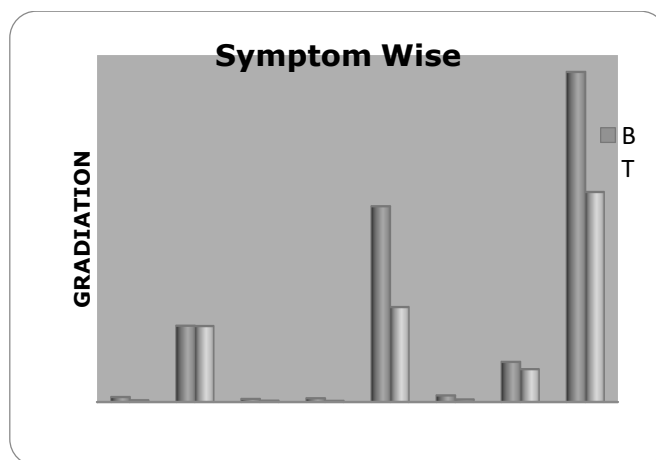
Symptoms	% of Relief
Shoola	66.16%
Shotha	0.45%
Vatpurnadrutisparsha	58.33%
Graha	70.94%
VAS	51.52%
OXFORD PAIN GRADE	61.98%
WALKING TIME	18.18%
Over All Assessment Score	36.38%

**DISCUSSION:** - The objective of the dissertation was to study the efficacy of Karpasasthyadi Taila Matra Basti in sandhigatvata. In this clinical study 30 patients were registered. Clinical trials were carried methodically & proper record of the observations was maintained. All the observations were observed thoroughly. The data is discussed as follows.

1. **Age:** - The eligibility criteria of age group for this study were between 40 to 70 years. Majority of the patients belonged to the age group of 40-50

### OBSERVATION:

#### SYMPTOM WISE ASSESMENT BEFORE AND AFTER TRETMENT:



years (53.33%), followed by 51-60 years (33.33%) and 61-70 years (13.34%).

2. **Sex:** - Among the 30 patients of Janu Sandhigata Vata, majority of them were females (60.00%) and remaining were males(40.00%). Even the universal data says the prevalence of osteoarthritis is more in elderly women.
3. **Diet:** - Among the 30 patients of Janu Sandhigata Vata, majority was having a mixed kind (60.00%) of dietary hab-

- its and rest were Vegetarians (40.00%).
4. **Occupation:** - The occupation of the patients indicate that 16(53.33%) of the patients were housewives, 14(46.67%) patients were doing some job mostly sedentary in nature. Majority of the housewives are busy in some activity or the other. Their work profile includes all most all activities related to house keeping. They may have to work in some odd postures. This excessive activity & Vishamcheshta may lead to Dhatukshya resulting in to Vataprakopa there by manifesting Sandhigatvata . In patient having sedentary jobs due to lack of activity, there by putting on weight again lead to Dhatukshya & then Sandhigatvata.
  5. **Prakruti:-** All the patients in this study were having Dwandwaja prakruti. Maximum number of patients i.e. 14 (46.67%) were having vata kaphaja while 13(43.33%) having vata pittaja prakruti, & 3(10.00%) were having pitta kaphaja prakruti. Thus it can be concluded that vata dominant patients suffer more from sandhigata vata & prognosis may be poor in them as prakruti & dosha involvement is same. In patients having kapha pittaj prakruti prognosis may be good as prakruti & dosha involved are not same.
  6. **Menstrual History:** In this study majority of the female patients i.e.14(46.67%) were having history of menopause or irregular menstruation. Menopause history or irregular menstrual history plays important role in manifestation of Sandhigata vata due to such history Apana gets pratiloma direction which in turns vitiates other type of vayu.
  7. **Malpravartan (Bowel Habit):** 22 patients (73.33%) were having irregular Malpravartan, while 8 (26.67%) patients had regular Malpravartan. Irregular Malpravartan, constipation is considerable as factor, as it obstructs the prakrita gati of apana vayu & creates the habit of vegodirana, which vitiates vayu, agni as well as purishadhara kala.
  8. **According to symptoms:**
  9. **Shoola :** According to statistics, Mean of reduction in Shoola was 1.31 & Percentage of relief was 66.16%.
  10. **Shotha :** According to statistics, Mean of reduction in Shotha was 0.14 and Percentage of relief was 0.45%.
  11. **Vatpurna Druti Sparsha :** According to statistics, Mean of reduction in Atopa was 0.7 and Percentage of relief was 58.33%.
  12. **Graha :** According to statistics, Mean of reduction in Graha was 1.05 and Percentage of relief was 70.94%.
  13. **VAS :** According to statistics, Mean of reduction in VAS was 41 and Percentage of reduction in VAS was 51.90%.
  14. **OXP:** According to statistics, Mean of reduction in OXP was 1.63 Percentage of reduction in OXP was 61.98%.
  15. **Walking Time:** According to statistics, Mean of reduction in walking time was 2.94 and Percentage of reduction in walking time was 18.18%.

## CONCLUSION

1. Janu Sandhigata Vata has been considered as a major problem in the society since long and the chance of occurrence is expected to be increasing through the coming years because of present life style.
  2. Majority of the drugs in Karpasasthyadi Taila are having Ushna Veerya, Vatahara and Vata-Kapha shamaka properties. So by their virtue, they help in breaking the samprapti of Janu Sandhigata Vata.
  3. Janu Sandhigata Vata afflicts predominantly in females.
  4. In Janu Sandhigata vata karpasasthyadi Taila Matra Basti was found statistically highly significant.
  5. Karpasasthyadi Taila Matra Basti has provided better relief in Sandhi Graha (reduced up to 70.94%) followed in Sandhi shoola (reduced up to 66.16%) and Vatapurna Druti Sparsha(reduced up to 58.33%) but only slight relief was observed in Sandhishotha.
  6. Overall assessment score shows 36.60% relief in all symptoms of janusandhigata vata by Karpasasthyadi taila Matra Basti.
  7. Karpasasthyadi taila Matra Basti is found to be good pachana and vatashaman.
  8. No any adverse effect was found during or after treatment.
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