



Research Article

EFFICACY OF HAPUSHADI YAPAN BASTI IN JANU SANDHIGAT VATA (KNEE OSTEOARTHRITIS)

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ABSTRACT

Osteoarthritis (OA) is the most common joint disorder. In Ayurveda the disease *Sandhigata Vata* resembles with OA. Nonsteroidal anti inflammatory drugs (NSAIDS) are mainly prescribed by modern doctors for its treatment. These medicines provide symptomatic relief, but the underlying pathology remains unchecked. *Ayurvedic Acharyas* have described the application of *Bahya Snehan* (External oleation), *Swedana* (fomentation), *Abhyantara Tikta Snehapana* (medicated ghee), *Basti* (medicated enema) treatment and *Guggulu Prayoga* In the management of *Sandhigata Vata*. *Basti* is prime treatment for various *Vata* disorders which includes *Sandhigat vata*. *Hapushadi Yapan basti* mentioned in *Charak siddhistan* for management of various *Vata* related disorders. **Aim:** To evaluate the efficacy of *Hapushadi Yapan Basti* in *Sandhigata vata*. **Materials & Method:** In the present study, 30 patients of *Sandhigata Vata* were given *Hapushadi Yapan 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:** *Hapushadi Yapan Basti* was significant in the subjective symptoms of *Sandhigata Vata*.

KEYWORDS: *Sandhigat vata*, Osteoarthritis, *Hapushadi Yapan Basti*.

INTRODUCTION

In today's fast and furious modernized era, everyone is busy with living life under stress, constantly running to match with the pace of this era. Osteoarthritis (OA) is the most common type of arthritis. Its high prevalence, especially in the elderly, and the high rate of disability related to disease make it a leading cause of disability in the elderly. Osteoarthritis (OA) is the second most common rheumatologic problem in India and has a prevalence rate of 22-39%.^[1] It is characterized primarily by articular cartilage degeneration and a secondary periarticular bone response.^[2,3] World-wide prevalence rate of OA is 20% for men, 41% for women and it causes pain or dysfunction in 20% of the elderly respectively.^[4] Because of the obesity, a major risk factor, are increasing in prevalence, the occurrence of osteoarthritis is on the rise.^[5] OA is joint failure, a disease in which all structures of the joint have undergone pathologic change, often in concert. The pathologic sine qua non of disease is hyaline articular cartilage loss, present in a focal and, initially, nonuniform manner.^[6] Due to continuous changes in life style, over exertion, improper and disturbed dietary habits, excessive

travelling, improper working and sleeping schedules, as well as improper application of *Ritucharya* (Seasonal regimen) and *Dinacharya* (Daily regimen) and likewise other factors leads to vitiation of *Vata dosha*. This vitiation of *Vata* leads to the production of number of diseases and *Sandhigatavata* is one of them.^[7] A faulty dietary habit, irregular life style is responsible for changes in body tissues and plays a vital role for the manifestations like above disease. Now a day, this disease is having high prevalence and becoming significant threat to the working population. In *Sandhigatavata*, the deformity occurs in *Sandhi* i.e. joints. *Janu sandhi* i.e. Knee joint is one of the mostly affected joints in *Sandhigatavata*.

Panchakarma therapy, one of the Gems of *Ayurveda* is a unique gift to modern civilization by *Ayurveda*. *Panchakarma*, the rejuvenation therapy plays important role in the management of various disorders by *Ayurveda* way of treatment. Out of *Panchakarmas*, *Basti* (Medicated enema) is most important part of treatment in the management of disorders of *Vata*.^[8]

Basti treatment acts on main site of *Vata* i.e. *Pakwashaya* (area over large intestine), so is the supreme treatment regarding *Vata dosha*.^[9] *Basti*, when applied acts on *Pakwashaya* and radially pacifies vitiated *Vata*, sole *Dosha* responsible for all movements including other *Dosha*, *Dhatu*, mala within the body. In *Ayurveda* classics, so many therapeutic procedures and line of treatments regarding the same is given. *Yapan basti* ^[10] is one of the *Basti* treatment indicated in *Vata* disorders and *Hapushadi Yapan Basti* is one of them. Both *Lekhana* as well as *Bruhana* (Nourishing) properties can be achieved with *Yapan basti* as it do have properties of *Niruha basti* as well as *Anuvasan basti*. ^[11]

AIM

To study the efficacy of *Hapushadi Yapan Basti* in *Sandhigatavata* with special reference to *Janu sandhi*.

OBJECTIVES

1. To study the concept of *Sandhigata vata* with special reference to *Janu sandhi*.
2. To study the standardization of ingredients (*Hapushadi yapan basti*).
3. To evaluate the role of *Hapushadi yapan basti* in *Sandhigata vata* with special reference to *Janu sandhi*.

MATERIAL AND METHODS

Type of study: Randomized single group open labeled clinical study

Place of study: OPD and IPD at S.T.R.H. Pune.

Duration of study: study was conducted during March 2012- May 2013

SELECTION OF PATIENTS

Total 30 patients of *Janu Sandhigata vata* who attended were selected, enrolled 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.

- *Sandhi Shoola*
- *Sandhi Shotha*
- *Vatapurna Druti Sparsha*
- *Graha* (Restricted movement)

2) Sex: Male & Female

3) Age: 30 to 70 Years.

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 were excluded.
- Auto immune diseases like SLE, Ankylosing Spondylitis.
- Neoplasms
- Permanent joint damage.
- Known cases of Cardiac disease, Pulmonary TB, Pregnancy, Paralysis, HIV, Neurological disorder etc.
- Chronicity for more than 10 years.
- Having severe crippling deformity.
- Age <30 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.
- f) During the trial any medication like

- Corticosteroids, Analgesic, Local application containing steroid & analgesic.
- Self medication.
- Narcotics are not permitted.

Upon questioning if, any subject is found to be using medications in non permitted categories he was withdrawn from the trial automatically.

MEDICATION AND TREATMENT PERMITTED

Treatment for minor ailments requiring medication for less than 3 days was permitted. Rescue of medication in the form of life- saving drugs, antibiotics, I.V. fluids may be permitted if 2 experts agree on their necessity.

METHOD OF ADMINISTRATION

Form: *Yapan basti*

Dose-240 ml.

Duration of therapy- 7 days

Follow up- on day 7 and day 14

PROCEDURE

Purvakarma- *Sthanik snehan* (Local oleation) and *Swedana* (Medicated fomentation)

Position- left lateral

Pradhankarma- *Basti-dana*

Pashchatakarma- *Tadana karma* and *Uttana* position.

Preparation of Hapushadi Yapan Basti**Table 1: The essential components**

Content	Quantity
<i>Hapusha (Juniperus comunis)</i>	1/2 Kudav (80 gms)
<i>Yava (Hordeum valgare)</i>	1 Kudav (160 gms)
<i>Godugdha (Cow's milk)</i>	6 Prasarut (480 ml)
<i>Sneha (Tilataila & Ghruta)</i>	Each 11/2 Prasarut (240 ml)
<i>Saindhava</i>	1 Karsha (10 gms)
<i>Madhu (Mel millis)</i>	2 Prasarut (160 ml)

According to text, first *Hapusha (Juniperus comunis)* and *Yava (Hordeum valgare)* in above mentioned quantity with its twice quantity of cow milk and water each were boiled till only *Ksheera (Cow's milk)* remain. Then *Saindhava* and *Madhu (Mel millis)* were mixed to form a homogenous mixture. Then *Sneha dravya* i.e. *Tila taila* and *Ghruta* 120 ml each were mixed in above mixture to form a homogenous mixture. In above mixture lukewarm *Ksheerapaka* was added and was churned to form a homogenous mixture. Out of above mixture 240 ml of *Hapushadi Yapan Basti* in luke warm condition was administered to patient.^[12]

METHOD OF ASSESSMENT

- Detailed case papers were prepared incorporating all signs & symptoms of *Sandhigata vata*.
- Pain was scored according to severity & involvement of knee joint.
- 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.

Table 2: Gradation of symptoms

Symptom	0	1	2	3
<i>Sandhishool</i>	Absent	Mild	Moderate	Severe
<i>Sandhishoth</i> (expressed in terms of average knee girth in cms)				
<i>Vatpurn druti sparsh</i>	None 0	Mild	Moderate	Severe
<i>Graham</i>	None	Mild	Moderate	Severe
Walking time (for 10 m in seconds)				

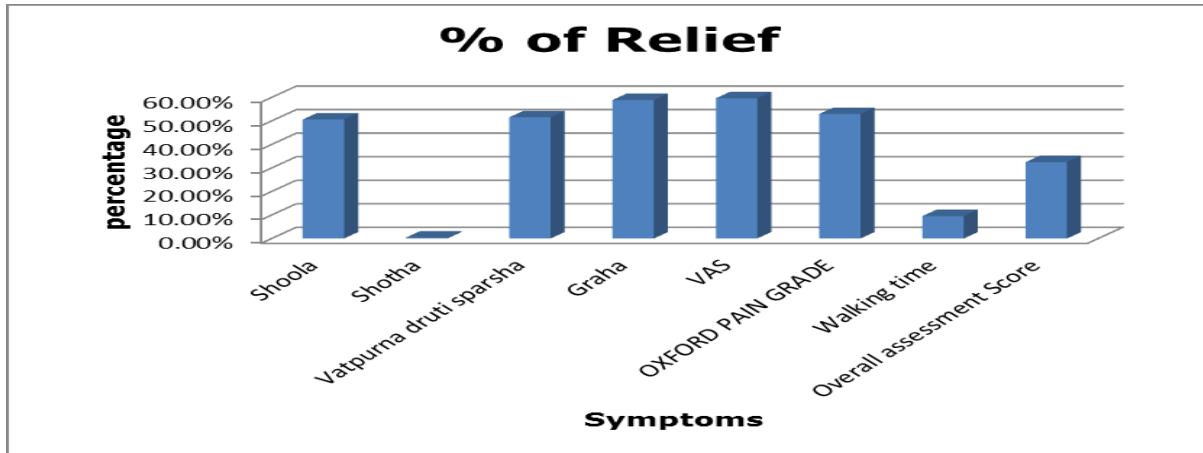
OBSERVATIONS**Table 3: Symptom wise comparison of treatment**

Symptom	Test	Before treatment Mean ± SD	After treatment Mean ± SD	P value	Result
<i>Shool</i>	Wilcoxon Rank sum	2.4±0.64	1.21±0.8	<0.0001	Extremely significant
<i>Shotha</i>	Paired t test	34.88±2.12	34.7±2.08	<0.0001	Extremely significant
<i>Vatpurn druti sparsh</i>	Wilcoxon Rank sum	1.3±0.89	0.6±0.6	<0.0001	Extremely significant
<i>Graham</i>	Wilcoxon Rank sum	0.9±0.67	0.3±0.49	<0.0001	Extremely significant
Oxford pain chart	Wilcoxon Rank sum	2.06±0.44	0.96±0.55	<0.0001	Extremely significant
Walking time	Paired t test	20.6±2.5	18.63±2.26	<0.0001	Extremely significant
Visual analogue scale	Paired t test	53.66±12.72	21.66±11.32	<0.0001	Extremely significant

Table 4: Percentagewise Assessment of Symptoms

Symptoms	Percentage
<i>Shoola</i> (pain)	50.60%
<i>Shotha</i> (swelling)	0.43%
<i>Vatpurna druti sparsh</i> (feeling hollowness)	51.53%
<i>Graham</i> (stiffness)	58.89%
VAS	59.62%
Oxford pain chart	52.93%
Walking time	9.56%
Overall assessment score	32.50%

Graph no. 1- Symptom wise comparison of treatment



DISCUSSION

The objective of the study was to evaluate the efficacy of *Hapushadi Yapan Basti* in *Sandhigatvata*. *Sandhigatavata* is a disorder dominated by pain affecting the *Sandhi* (joint). It is caused by morbid *Vata Dosha*. *Kapha Dosha* may also be involved in the clinical presentation. The vitiated *Dosha* or *Doshas* afflict the *Mamsa, Asthi and Snayu*. It is more evident in *Asthi Dhātu* with which *Vayu* has *Ashraya-Ashrayee Bhava Sambhanda*.

In this clinical study 30 patients were registered. Clinical trials were carried out methodically & proper record of the observations was maintained.

All the observations were observed thoroughly. The data is discussed as follows.

According to symptoms

- Shoola (pain):** According to statistics, Mean of reduction in *Shoola* was 1.25 & Percentage of relief was 50.60%.
- Shotha (swelling):** According to statistics, Mean of reduction in *Shotha* was 0.15 and Percentage of relief was 0.43%.
- Vatpurna drutisparsha (feeling hollowness):** According to statistics, Mean of reduction in this symptom was 0.67. Percentage of relief was 51.53%.
- Graha (stiffness):** According to statistics, Mean of reduction in *Graha* was 0.53. Percentage of relief was 58.89%.
- VAS:** According to statistics, Mean of reduction in VAS was 32. Percentage of reduction in VAS was 59.82%.
- OXP:** According to statistics, Mean of reduction in OXP was 1.09. Percentage of reduction in OXP was 52.93%.
- Walking time:** according to statistics, mean reduction in walking time was 1.97. Percentage of reduction in walking time was 9.56%.

CONCLUSION

- The relief was seen all symptoms of *Janu sandhigata vata* by *Hapushadi Yapan Basti*.
- *Hapushadi Yapan Basti* is found to be good *Brunhana, Vatashamana*.
- *Hapushadi Yapan Basti* in *Janu Sandhigata vata* was found statistically highly significant.
- No any adverse effect was found during or after treatment.
- No deterioration in sign and symptoms were found after *Basti* treatment in maximum patients.

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