

ROLE OF BASTI AS SHODHANA ALONG WITH SHAMANA IN TREATING JANUSANDHIGATAVATA (PRIMARY OSTEOARTHRITIS OF KNEE): A CASE REPORT

ABSTRACT

Sandhigataavata is a type of *vata vyadhi* caused due to *dhatuksaya* and other *vata prakopaka nidana*. In *Sandhigataavata*, *shula*(pain) is *pradhana vedana* seen with *sandhishotha*(joint swelling) and *vata purna druti Sparsha*(crepitus)as associated *lakshanas*. *Sandhigataavata* can be correlated to Osteoarthritis(OA) in Contemporary medical science. Osteoarthritis being the most common type of arthritis in clinical practice where clinical features include pain, swelling and restricted joint movements. This condition commonly involves joints of hands, knees, feet, facet joints of spine and hips, where knee being the most common location. The incidence of OA in India is as high as 12%. Women are at higher risk of developing primary OA than men. In particular, postmenopausal and obese women are more prone to the disease.

In this case report, 58 years old female came with complaint of pain in bilateral knee joints (left knee pain more than right knee) associated with swelling and difficulty in doing her day-to-day activities for 4-5 months. The patient was treated with Ayurvedic treatment protocols in terms of both *Samshamana* and *Samshodana* like *sadyovirechana* and *yoga basthi* along with *bahya chikitsa* and other protocols like *udwaratana*, *janu basthi* and *janu upanaha*, which helped in *agni vardhana*, *vata shamana* and specially *dhatu poshana*. Along with treatment the importance was given for *pathya-apathya ahara* and *vihara*. The treatment showed significant improvement in *shula*, *shotha* and along with considerable changes in performance of day-to-day activities without any difficulty.

Key Words – *Basti, Shodhana, Shamana, Janusandhigataavata, Primary Osteoarthritis.*

INTRODUCTION

In India, the prevalence of Osteoarthritis (OA) is estimated to be as high as 12%, affecting about four out of every 100 people. OA is the most common joint disorder, remaining asymptomatic in individuals during their second and third decades but becoming increasingly common by the age of 70. By the age of 40, nearly everyone shows some form of pathological change in a weight-bearing joint. OA with symptoms affects 16% of men and 25% of women¹. Bilateral OA is more prevalent in women, while unilateral OA is more common in men². The decline in estrogen levels during the pre-menopausal period significantly contributes to the higher incidence of OA in women³.

Osteoarthritis (OA) is a degenerative disorder primarily characterized by joint stiffness, swelling, pain, reduced mobility, and the breakdown of articular cartilage along with synovial inflammation⁴. It is a leading cause of disability, particularly because it predominantly affects weight-bearing joints like the hip and knee⁵. In Ayurveda, this condition can be understood as *Janu Sandhigata Vata*.

Sandhigata vata is as one of the eighty types of *vata vyadhi* described in various *Ayurveda* treatises. Foremost description of *sandhigata vata* is given in *Charaka samhita*. *Vatapurnadritisparsha* (coarse crepitation), *shotha* (swelling) and *Prasaranakkunchanapravriti savedana* (pain during flexion and extension of the joint) are the clinical features of *sandhigata vata*^{6,7,8}. *Sthansamshraya*(localisation) of vitiated *vata dosha* at *janu sandhi* (knee joint) results in the development of a disease termed as *Janu sandhigata vata*.

The line of treatment adopted in *Sandhigata Vata* should concentrate mainly on *Vata Shamana*, *Shula Harana* (pain relief) and *Asthi Dhatu Poshana* (nourishment of bones). Since both *Asthi*(bone tissue) and *Majja*(bone marrow) *Dhatu*s are involved, *Asthi Majjagata Chikitsa*⁹ can be adopted. External therapies like *Udwartana*(powder massage), *Janu Basti*, *Upnaha*(bandage), *Patra Pinda Sweda*(poultice) and *Baspa Sweda* help in *Snehana*(oleation) and *Swedana*(fomentation), reducing inflammation and pain in the joints. For *Samshodana*(purificatory measures), *Tikta Ksheera Basti*¹⁰ is recommended for *Vata Shamana* and nourishing the tissues, along with *Samshamana* (medicines) to alleviate swelling and pain in the affected knee joints.

MATERIALS AND METHODS

Case Report

In this case report, 58 years old female came with complaints of pain in bilateral knee joint, left knee pain more than right associated with swelling since 4 months. The complaint began in March 2023, with the patient gradually experiencing intermittent, intense pain in both knee joints (left more affected than the right), accompanied by swelling that fluctuated in severity. The pain was gradually progressive and becoming more intense, especially with activities such as household chores, prolonged standing, climbing stairs, walking long distances, sitting on the floor, and consuming pulses and potatoes. She found relief from the pain after resting, using hot fomentation, applying analgesic spray, and oil massages. However, three months ago, the pain became constant throughout the day, severely affecting her daily activities. She sought medical attention at other hospitals, where necessary investigations were conducted, and knee replacement surgery was recommended. Not wanting to undergo surgery, she approached to Ayurveda for further treatment.

Clinical Examination

A detailed examination of the patient was performed, and all systems, except the locomotor system, were found to be normal.

General examination - Height – 153cms, Weight – 76kgs, BMI – 32.5 kg/m²(Obese class-I)

Vitals – PR-82b/min, BP-130/80mmHg, RR-20c/min

Locomotor system examination done in detail.

1. GALS (Gait, Arms, Legs, Spine) Screening done showing, Gait – normal, Arms – normal ROM, no deformity, Spine– no deformity/ swelling noted.
2. On examination of bilateral knee joints following signs and symptoms were observed as mentioned in table-1,2 & 3

Table no.1: Inspection

Findings	Left Knee	Right Knee
Scar mark	Absent	Absent
Deformity	Absent	Absent
Redness	Absent	Absent
Swelling	+	Absent

Table no.2 - Palpation

Findings	Left Knee joint	Right Knee joint
Swelling	+	-
Warmth	-	-
Tenderness	++	+
Crepitus	++	+

Table no.3: Range of movements

Range of Movements	Left knee joint	Right knee joint
Flexion	Possible with Pain ++	Possible With pain +
Extension	Possible with Pain +	Possible with pain +
Abduction	Possible without Pain	Possible without Pain
Adduction	Possible without Pain	Possible without pain

Investigations

Blood tests, including CBC and lipid profile, were conducted. The results showing raised ESR of 40 mm/hr, total cholesterol of 225 mg% and triglycerides at 204 mg%. Radiological investigation of

X-ray of bilateral knee joints showed degenerative changes noted in the form of marginal osteophytes. All other parameters were within normal limits.

Assessment

After thorough examination, the patient was *kapha-pittaja prakriti purusha* with *Madhyama bala* and *krura kosta*. Pain was assessed using the Visual Analog Scale¹¹ and the score of 6 out of 10 was observed before treatment. Symptomatic relief was evaluated based on the symptoms using the Patient-Reported Outcome Measures (PROMs)¹².

Treatment Protocol

After the clinical examination and reviewing the blood and radiological tests, the patient received treatment including *Samshodana*, *Samshamana*, and *Bahya chikitsa*. The details of the treatment provided are listed in Tables 4 and 5.

Table no.4: Treatment given in the Hospital

DATE	TREATMENT	
24/08/2023	<i>Sarvanga udwartana</i> + <i>baspa sweda</i> <i>Janu upanaha</i> to bilateral knee joints	Orally 1. Tab. <i>Gokshuradi guggulu</i> [13] 1-1-1 a/f 2. Tab. <i>Prolage plus</i> 1-0-1 a/f 3. <i>Rasna erandi Kashaya</i> [14] 15-0-15ml with 30ml warm water b/f
25/08/2023	<i>Sadyovirechana</i> with <i>Gandarovahastyadi taila</i> [15] – 60ml with <i>Shunti jala anupana</i> . Number of vegas - 12 vegas	
26/08/2023 to 01/09/2023	1. <i>Sarvanaga udwartana</i> + <i>Baspa sweda</i> 2. <i>Janu basthi</i> with <i>maha vishagarbha taila</i> 3. <i>Sthanika Snighda patrapinda sweda</i> (b/l knees) 4. <i>Yoga basthi</i>	Discharge medications 1. Tab <i>Kaishora guggulu</i> [16] 1-1-1 a/f 2. Tab <i>Vishamusti vati</i> [17,18] 1-1-1 a/f 3. Cap <i>Ganda taila</i> [19] 1-0-1 a/f 4. <i>Rasna eranadi Kashaya</i> [14] 3-0-3tsp with warm water b/f 5. <i>Mahavishagarbha taila</i> – e/a Review after 1 month

Table No.5: Ingredients of *Tiktha-ksheera Yoga basthi* [10]

ANUVASANA BASTHI	NIRUHA BASTHI
<i>Guggulu tiktaka ghrita</i> – 80ml	✓ <i>Madhu</i> – 50ml ✓ <i>Saindava lavana</i> – 5gm ✓ <i>Guggulu tiktaka ghrita</i> – 70ml ✓ <i>Shatpushpa churna</i> (20gm) + <i>godanti bhasma</i> (30gm) ✓ <i>Ksheera</i> – 100ml ✓ <i>Eranada muladi Kashaya</i> – 250ml

RESULTS

The effectiveness of the treatment was evaluated by assessing pain levels using the Visual Analog Scale (VAS) and tracking the patient's overall symptoms through Patient-Reported Outcome Measures (PROMs). These assessments were conducted to monitor the progress and relief

110 experienced by the patient throughout the treatment. The detailed results of these evaluations are
 111 provided in Tables 6, 7, and 8.

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113 **Table no.6: Visual analogue scale¹¹**

Before treatment	After treatment
6/10	3/10

114

115 **Table no.7: PROMS scale¹² - on palpation**

Knee joint	Right		Left	
Symptoms	BT	AT	BT	AT
Swelling	-	-	+	-
Tenderness	-	-	+	-
Crepitus	++	+	+++	+

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117 **Table no.8: Range of movements of knee joints**

Knee joint	Right		Left	
Range of movements	BT (pain)	AT (pain)	BT (pain)	AT (pain)
Flexion	+	-	++	+
Extension	+	-	+	-
Abduction	-	-	+	-
Adduction	+	-	+	-

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119 **DISCUSSION**

120 *Sandhigata vata* is *vata vyadhi* involving *madyhama roga marga* where vitiated *vata* takes *sthana*
 121 *samsraya in sandhi*. After taking a complete history, conducting an examination, and reviewing the
 122 investigation findings, it was determined that the condition primarily involved *vata dosha*, with
 123 some involvement of *kapha*. Based on the location and affected *dosha*, the treatment plan focused
 124 on addressing the aggravated *vata* and *asthi dhatu*. Since the *asthi dhatu* was involved, the
 125 treatment followed the guidelines for *asthimajjagata dhatu*, as described by *Acharya Charaka*,
 126 which includes the use of *tiktha ghrita* and *ksheera*, along with other external treatments.

127 Initially, *Sarvanga Udvartana* and *Baspa Sweda* were planned to balance *kapha* and reduce excess
 128 *Meda*. Later, to enhance digestion and cleanse the *kosta*, *Sadyovirechana* with *Gandarvahastadhi*
 129 *Eranda Taila*¹⁵ was administered.

130 *Tiktha Ksheera Basti*, consisting mainly of *Tiktha Ghrita* and *Ksheera*, was prescribed for 8 days.
 131 Due to its *Tikta Rasa*, this *Basti* has *Deepana*, *Pachana*, *Lekhana* and *Rochana* properties, which
 132 helped strengthen the joints and assist with the patient's weight management. Furthermore, the *Tikta*
 133 *Rasa* has *Jwaraghna* and *Daha Prashamana* qualities, acting as an anti-inflammatory to reduce
 134 joint pain and swelling. On the other hand, *Ksheera* provided *Bruhmana*, *Balya* and *Asthi Poshaka*
 135 benefits, nourishing the bones and supporting the *Asthi Dhatu*. This *Basti* protocol not only helps
 136 prevent further bone degeneration but also nourishes the *Asthi Dhatu* by normalizing *Vata*
 137 imbalance. Other external treatments, such as *Janu Basti*, were performed as *Sthanika Snighda*
 138 *Swedana*. This helped to nourish the knee joint and provided relief from pain (*shula*).

139 Simultaneously *Shamana aushadhi* such as *Rasna eranadi Kashaya*¹⁴, *Prolage* plus, *Gokshuradi*
 140 *guggulu*¹³, *Kaishora guggulu*¹⁶, *Visha musthi vati*^{17,18} and *Gandha taila*¹⁹ capsules were
 141 administered orally. *Rasna eranadi Kashaya* acts as *shulahara* and helped in relieving *shotha* in
 142 *janu sandhi*. *Gokshuradi guggulu* helped in normalising the *prakupita vata* as it is indicated in all
 143 *vata vyadhis*. *Prolage* plus tablet is one proprietary medicine including *chingati satwa* as main
 144 ingredient along with *shallaki* and *haridra* helped in subsiding pain and nourishing *asthi dhatu* by
 145 further preventing the progression of disease. Later during discharge patient was advised with
 146 *Kaishora guggulu* and *Gandha taila* capsules as *rasayana* and *vata shamana*. Along with above
 147 medicine, *Vishamusthi vati* was advised having ingredients like *shudha kupilu*, *maricha* and

indravaruni which acted as *shulahara* and *vatakaphahara* improves the movement of joints by providing the nourishment. In addition to the treatment modalities, a proper diet (*Patya Ahara*) and lifestyle (*Vihara*) were followed, which played a key role in preventing the disease and promoting the nourishment of the tissues (*dhatu*). The overall improvement from the treatment was evaluated using the Visual Analog Scale for pain and Patient-Reported Outcome Measures (PROMs). These assessments documented changes in tenderness, crepitus, swelling, and the range of motion in both knee joints before and after treatment. Significant improvements were observed in knee mobility, PROMs and the Visual Analog Scale, leading to a better quality of life for the patient.

CONCLUSION

The Ayurvedic treatments, including *Shodhana* with *Tikta-Ksheera Basti*, *Shamana Chikitsa* and *Pathya*, helped prevent the progression of the disease and nourished the affected knee joint. A variety of treatments led to significant improvements in symptoms before and after the treatment. The Visual Analog Scale score for pain decreased from 6 before treatment to 3 after treatment, and there was also a notable improvement in the PROMS scale. It is evident through the result that multiple arms of treatment demonstrated greater relief in symptoms in this case. However, further studies with a larger sample size are needed to validate the effectiveness of this treatment protocols.

INFORMED CONSENT

Written consent from the patient was obtained to publish details of the case.

CONFLICT OF INTEREST

None.

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