

## **Ayurvedic Management of Osteoarthritis (OA) of Knee Joint: A Single Case Study**

**Ganga Prasad Perikamana,<sup>1</sup> Madhu P M<sup>2</sup>**

<sup>1</sup> PG scholar, <sup>2</sup> Assistant Professor, Department of Roganidana, Government Ayurveda College, Pariyaram, Kannur, Kerala, India

### **ABSTRACT:**

Osteoarthritis (OA) is a common degenerative disorder that predominantly affects weight-bearing joints such as the knee. Age-related changes in the musculoskeletal system contribute significantly to the development and progression of OA, making advancing age one of the major risk factors. The main clinical features of osteoarthritis include joint pain, swelling, and restriction of movement. A similar clinical presentation can be correlated with the concept of *Sandhigata Vata*, described under *Vata Vyadhi* in Ayurvedic classics. This case report describes a 75-year-old female patient who presented with complaints of bilateral knee joint pain for more than 15 years, associated with swelling. The patient also reported difficulty in walking, and clinical examination revealed restricted range of motion of the knee joints. The patient was admitted and a detailed clinical evaluation was carried out. At the time of admission, the presence of *Ama* was suspected based on clinical features; therefore, *Rookshana Kriya* was initially administered internally and externally by procedures like *Lepanam*, *Dhanyamla Dhara*. Subsequently, treatment aimed at *Vata Shamana* and *Brimhana Karma* by *Upanaham* and *Pizhinju Thadaval* was implemented along with appropriate internal medications for a duration of two months. It could be concluded that efficient use of external and internal Ayurvedic treatment methodologies in the background of accurate diagnosis can provide symptomatic relief to patients suffering from Osteoarthritis.

**KEY WORDS:** *Brimhana*, OA knee, *Sandhigata Vata*, *Rookshana*, *Vata Shamana*.

Received: 11.03.2026

Accepted: 21.03.2026

Published: 05.04.2026



This work is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/) © 2026 International Journal of AYUSH Case Reports | Published by Tanaya Publication, Jamnagar.

### **QR Code**



### **\*Corresponding Author:**

**Dr. Ganga Prasad Perikamana**

PG scholar, Department of Roganidana, Government Ayurveda College, Pariyaram, Kannur

Email: [perikamanagangaprasad@gmail.com](mailto:perikamanagangaprasad@gmail.com)

## INTRODUCTION:

Osteoarthritis (OA), the most common form of chronic joint condition affecting nearly 350 million people worldwide ( $\approx 15\%$  of the population). The Global Burden of Disease Study 2019 reported a 113% increase in cases from 1990 to 2019 (247.5 to 527.8 million). [1] In 2019, China, India, and the United States had the highest case numbers. The rising prevalence underscores OA as a growing global degenerative and healthcare burden. [2]

Among the risk factors, Age is a key risk factor for osteoarthritis (OA), significantly influencing its onset and progression. OA prevalence is particularly high in the elderly, especially in weight-bearing joints such as the knees and hips, underscoring age as a major driver of disease development. It is characterized by the gradual degeneration of joint cartilage, leading to pain, stiffness, and functional impairment. [3]

These symptoms could be closely correlated to *Sandhigata Vata* in Ayurvedic context. *Sandhigata Vata* is a type of *Vata Vyadhi* that manifests in the *Madhyama Rogamarga*. According to Ayurveda, the *Janu Sandhi* (knee joint) is classified as a *Kora Sandhi*. [4]

*Sandhigata vata* was first described by Acharya Charaka as *Sandhigata Anila*, characterized by *Shotha* (swelling) and *Shula* (Pain) during *Prasarana* (extension) and *Akunchana* (Flexion). [5]

Acharya Sushruta also emphasized pain, swelling along with resultant restriction of joint movement (*Hanthi*).

[6] Madhavakara further described *Atopa*

(crepitus) as an additional clinical feature. [7]

In *Jaravastha*, *Vata Prakopa* naturally occurs, and through the principle of *Ashraya-Ashrayi Bhava*, it directly affects *Asthi Dhatu*, leading to *Asthi Dhatukshaya*. If this *Prakupitha Vata* gets localized in *Janu Sandhi*, it will manifest the symptoms of *Janu Sandhigata Vata*.

Contemporary management of Osteoarthritis primarily includes non-steroidal anti-inflammatory drugs (NSAIDs), analgesics such as acetaminophen, and surgical interventions including joint replacement. Although these modalities offer symptomatic relief, long-term pharmacological use is associated with potential adverse effects, and surgical procedures may not be economically feasible or accessible to all patients. [8]

In contrast, Ayurvedic management emphasizes a holistic approach aimed at alleviating symptoms through internal and external therapeutic interventions, along with appropriate modifications in *ahara* (diet) and *vihara* (lifestyle) that may influence disease progression.

The present case study substantiates the potential effectiveness of classical Ayurvedic principles in the symptomatic management of OA knee in elderly patients, demonstrating clinical improvement without the necessity for major surgical intervention.

## CASE STUDY:

A 75-year-old female patient presented with complaints of bilateral knee joint pain, swelling, and restricted movements, which had worsened over

the past four months. She reported a history of intermittent episodes of similar symptoms for the past 15 years. The patient had been employed as a daily wage worker since the age of 20 years. Owing to the continuous and strenuous nature of her work, she initially developed pain in the left knee joint. Over the years, the condition gradually progressed to involve both knee joints, and for the past four months, the pain has been associated with swelling and increased functional limitation.

Despite undergoing multiple treatment modalities, the patient did not experience satisfactory relief. Thus, got admitted for further IP managements at Government Ayurveda Hospital, Pariyaram, Kannur.

Diagnosis was made based on the clinical presentation and X- ray findings. Radiographic examination showed marked joint space narrowing with osteophyte formation and subchondral sclerosis. Parameters assessed includes Pain, Swelling, Crepitus and Range of Motion of Bilateral Knee joints.

#### **THERAPEUTIC INTERVENTION:**

Treatment was done in 3 different stages based on the *Samprapthi Vighatana*

Stage 1- *Ama Avastha* (evident swelling and pain corresponding to stage of *Ama*)

Stage 2- *Pachyamana Avastha* (reduced swelling but pain persisting)

Stage 3- *Pakwa Avastha* (absence of swelling, reduced pain - *Vata* predominant)

#### ***Ama Avastha***

**Table 1: List of internal medicines (*Amaavastha*)**

Internal Medicines given	Dose	Duration
<i>Amrithotharam Kashayam</i> + <i>Punarnavadi Kashayam</i>	90mL two times a day, before food	10 days
<i>Yogaraja Guggulu</i>	1 tablet 2 times a day with <i>Kashayam</i> before food	10 days
<i>Gandharva Erandam Tailam</i>	10 mL Empty stomach	10 days

**Table 2: List of external therapy (*Ama Avastha*)**

External Therapy done	Medicine used	Duration
<i>Lepanam</i>	<i>Jatamayadi Choornam</i>	7 days
<i>Dhara</i>	<i>Dhanyamla</i>	3 days

#### ***Pachyamana Avastha***

**Table 3: List of internal medicines (*Pachyamana Avastha*)**

Internal Medicine given	Dose	Duration
-------------------------	------	----------

<i>Guggulu Tiktaka Kashayam + Bala Guluchyadi Kashayam</i>	90 mL two times a day, before food	15 days
<i>Yogaraja Guggulu</i>	2 tablets two times a day with <i>Kashayam</i>	15 days

**Table 4: List of External Therapy (*Pachyamana Avastha*)**

External Therapy done	Medicine used	Duration
<i>Upanaham</i>	<i>Tiktaka Gritham + Dhanwantaram Tailam + Kukkutandatwak Choornam + Saindhavam</i>	25 days

***Pakwa Avastha***

**Table 5: List of Internal Medicines (*Pakwa Avastha*)**

Internal Medicine given	Dose	Duration
<i>Mahakukkuta Mamsa Tailam</i>	1 spoon thrice a day after food with 3 pinch <i>Kukkutandatwak Choornam</i>	20 days

**Table 6: List of External Therapy (*Pakwa Avastha*)**

External therapy	Medicine used	Duration
<i>Pizhinju Thadaval</i>	<i>Dhanwantaram Tailam</i>	7 Days

**Table 7: List of Discharge Medicines**

Medicines Prescribed	Dosage	Duration
<i>Guggulu Tiktaka Kashayam + Bala Guluchyadi Kashayam</i>	90 mL two times a day, before food	30 days
<i>Mahakukkuta Mamsa Tailam</i>	1 spoon two times a day after food with 3 pinch <i>Kukkutandatwak Choornam</i>	30 days
Bonton Capsule	1 capsule two times a day, after food	30 days
<i>Kottamchukkadi Tailam</i>	External application	30 days

**Table 8: Assessment of clinical symptoms**

Assessment Criteria	Before Treatment	After Treatment	Follow Up
Pain in knee joint	Grade 3 (R) Grade 2 (L)	Grade 2 (R) Grade 1 (L)	Grade 1 (R) No tenderness over L

Swelling over knee joint	Prominent suprapatellar swelling over R knee joint > L	Mild reduction in swelling over R and L	Considerable reduction in swelling B/L
crepitus	2 + B/L knee	1+ B/L knee	1+ B/L knee
ROM (Right)	30° Flexion (severe pain) 10° extension (painful)	60° Flexion (moderate pain) 5° extension (mild pain)	85° Flexion (mild pain) Full extension (without pain)
ROM (left)	0°-80° Flexion (mild pain) 5° extension (without pain)	0°-100° Flexion (no pain) Full extension	0°-115° Flexion (no Pain) Full extension



Fig 1-ROM: R knee before treatment  
0°-30° Flexion



Fig 2-ROM: R knee after treatment(F/Up)  
0°-85° Flexion



Fig 3-ROM: L knee before treatment  
0°-80° Flexion



Fig 4-ROM: L knee after treatment(F/Up)  
0°-115° Flexion



Fig 5- *Ama Avastha*



Fig 6- *Pachyamana Avastha*



Fig 7- *Pakwa Avastha*

### RESULT:

A total of 45 days of inpatient management was administered. Clinical assessment of symptoms was carried out before initiation of treatment, after completion of therapy, and at a one-month follow-up visit. At follow-up, the patient reported considerable reduction in pain and swelling, along with notable improvement in the range of motion of both knee joints.

### DISCUSSION:

Although *Sandhigata Vata* is primarily a *Vata*-predominant disorder, the condition was initially assessed to be in a *Saama* state; hence, *Rookshana* therapy was initiated. Subsequently, internal and external treatments aimed at *Vata Shamana* were administered, which contributed to improvement in joint strength and the supporting structures.

After 45 days of treatment, mild reduction in pain and swelling with improved range of motion was observed. At 30-day follow-up, swelling had nearly resolved with further improvement in joint mobility.

The favourable outcome may be attributed to a comprehensive therapeutic approach tailored to the *Vyadhi Avastha* (*Ama*, *Pachyamana*, and *Pakwa* stages), incorporating appropriate internal and external

therapies to address both symptoms and underlying *Vata* imbalance.

At the time of admission, the patient presented with marked bilateral knee joint swelling, severe pain, and restricted, painful movements. Based on the clinical presentation, an initial *Ama* stage was considered, and therapeutic interventions possessing *Ama-pachana* and *Shotha-hara* properties were selected.

Internal medications administered included *Amrithotharam Kashayam*, *Punarnavadi Kashayam*, *Yogaraja Guggulu*, and *Gandharva Eranda Tailam*, which collectively exert *Ama-pachana*, *Shotha-hara*, *Shula-hara*, *Vatanulomana*, and *Sandhimajja-gata Vata-hara* effects.

External therapies comprised *Lepanam* with *Jatamayadi Choornam*, known for its *Ruja-Shotha-hara* action, and *Dhanyamla Dhara*, which possesses *Ruksha*, *Ushna*, *Vata-hara*, and *Shotha-hara* properties.

After 30 days of initial treatment, mild reduction in pain and swelling was observed; however, restriction in the range of motion persisted. To reduce further joint inflammation and pacify aggravated *Vata*, internal administration of *Guggulu Tiktaka Kashayam* (indicated in *Sandhimajja-gata Vata*) and *Bala Guluchyadi Kashayam* was initiated.

Externally, *Upanaha Sweda* was administered using a combination of

*Tiktaka Ghritam, Dhanwantaram Tailam, Kukkutandatwak Choornam, and Saindhava. Upanaha, a form of Swedana Karma, is primarily indicated for Vata disorders due to its inherent Ushna Guna and Shotha-hara properties. The penetrating action of Swedana, along with the synergistic effect of the applied formulations, likely contributed to further reduction of inflammation and swelling, while also providing support and strength to the affected joint.*

Following completion of therapy, pain and swelling had nearly resolved, with significant improvement in joint mobility. To enhance tissue nourishment, strengthen periarticular structures, and prevent further *Vata* aggravation, *Mahakukkuta Mamsa Tailam* was administered internally with *Kukkutandatwak Choornam*, a rich source of calcium and may support cartilage integrity and reduce joint discomfort, and *Pizhichil* was continued as external supportive therapy with *Dhanwantaram Tailam* which is *Sarva Vatavikarajit* and is beneficial in *Asthivikara*.

Overall improvement in joint mobility and functional joint health was observed at the 30-day follow-up

#### **CONCLUSION:**

Considering the above findings, it may be concluded that a treatment protocol based on *Samprapthi Vighatana* and stage-wise assessment of the disease facilitates structured therapeutic planning and contributes to favourable clinical outcomes. As it is a degenerative condition, complete structural reversal may not be expected; however, Ayurvedic treatment can provide

sustained symptomatic relief, improve joint function, and help in slowing disease progression.

#### **Patient Consent:**

The authors certify that they have obtained appropriate written informed consent from the patient. The patient has provided consent for the publication of clinical information and images in the journal. The patient understands that her name and initials will not be published, and due efforts will be made to conceal her identity

#### **Limitation of study:**

This report represents a single case study. Further case series and well-designed clinical studies may be conducted to substantiate and evaluate the therapeutic benefits observed.

**Conflict of interest:** The author declares that there is no conflict of interest.

**Guarantor:** The corresponding author is the guarantor of this article and its contents.

**Source of support:** None

#### **How to cite this article:**

Ganga Prasad Perikamana, Madhu P M. Ayurvedic Management of Osteoarthritis (OA) of Knee Joint: A Single Case Study. Int. J. AYUSH Case Reports. 2026; 10(1-B): 1-8.

**REFERENCES:**

1. Yelin E, Weinstein S, King T. An update on the burden of musculoskeletal diseases in the U.S. *Semin Arthritis Rheum.* 2019;49:1-2.
2. Long H, Liu Q, Yin H, Zhang X, Yuan H, Li X, et al. Prevalence trends of site-specific osteoarthritis from 1990 to 2019: findings from the Global Burden of Disease Study 2019. *Arthritis Rheumatol.* 2022;74:1172-1183.
3. Lou Z, Bu F. Recent advances in osteoarthritis research: a review of treatment strategies, mechanistic insights, and acupuncture. *Medicine (Baltimore).* 2025;104(4):e41335.
4. Sastri AD, editor. *Sushruta Samhita of Sushruta. Vol. 1, Sharira Sthana, Chapter 5, verses 31-33.* Varanasi: Chowkhamba Sanskrit Sansthan; 1997. p.46.
5. Trikamji Y, editor. *Charaka Samhita of Agnivesha. Chikitsa Sthana, Vatavyadhi Chikitsa Adhyaya, verse 37.* Varanasi: Chaukhamba Surbharati Prakashan; 2011. p.690.
6. Shastri K, editor. *Sushruta Samhita of Sushruta. Nidana Sthana, Vatavyadhi Nidana Adhyaya, verse 29.* Varanasi: Chaukhamba Sanskrit Sansthan; 2012. p.460.
7. Tripathi B, editor. *Madhava Nidana with Madhukosha commentary. Vol. 1, Chapter 22, verses 1-3.* Varanasi: Chaukhamba Surbharati Prakashan; 1998. p.505.
8. Osteoarthritis Research Society International (OARSI). OARSI [Internet]. Available from: <https://oarsi.org>. [cited 2026 Feb 14].