



“Clinical Importance of Sarvanga Abhyanga and Swedana in Asthi and Sandhigata Vata: An Ayurvedic Perspective with Contemporary Clinical Correlation”

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ABSTRACT :

Introduction

Asthi and Sandhigata Vata represent important clinical manifestations of Vata predominance and degeneration within the musculoskeletal system described in Ayurveda. Sandhigata Vata is characterized principally by pain, swelling, stiffness, crepitus and restricted or painful movement of joints. Clinically, it shares considerable similarity with osteoarthritis (OA), particularly in older adults. Osteoarthritis is a major cause of pain and disability worldwide; the World Health Organization estimated that approximately 528 million people were living with osteoarthritis globally in 2019.

Aim

To discuss the clinical importance, Ayurvedic rationale, probable therapeutic mechanisms and practical application of Sarvanga Abhyanga and Swedana in the management of Asthi-related Vata disorders and Sandhigata Vata.

Materials and Methods

This paper is a narrative review based on classical Ayurvedic concepts of Vata, Asthi Dhatu, Sandhi, Snehana and Swedana, supplemented by published clinical literature concerning Sandhigata Vata, osteoarthritis and Ayurvedic interventions. Available clinical studies have been considered with attention to their methodological limitations.

Discussion

Abhyanga, particularly when performed with appropriately selected medicated oil, is traditionally considered a Vata-pacifying and nourishing intervention. Sarvanga Abhyanga provides a systemic approach to oleation, while Swedana following Abhyanga facilitates warmth, relaxation, mobility and the therapeutic action of Snehana. From an Ayurvedic perspective, this sequence is particularly relevant where Vata aggravation is associated with rukshata, stiffness, pain, restricted movement and degenerative changes. Published clinical studies involving Abhyanga and different forms of Swedana in Sandhigata Vata have reported improvement in pain, stiffness and functional symptoms, although the available evidence is limited by small samples, heterogeneous interventions and frequent use of multimodal treatment protocols.

Conclusion

Sarvanga Abhyanga followed by appropriately selected Swedana may have an important supportive role in Vata-dominant musculoskeletal disorders, particularly Sandhigata Vata. Its greatest clinical value may be as part of an individualized, multimodal rehabilitation programme rather than as a stand-alone replacement for evidence-based assessment and management of osteoarthritis. Larger controlled clinical trials with standardized protocols and objective functional outcomes are required to establish its efficacy and safety more conclusively.

Keywords: Sarvanga Abhyanga, Swedana, Snehana, Asthi Dhatu, Sandhigata Vata, Vata Vyadhi, Osteoarthritis, Ayurveda, Musculoskeletal disorders, Rehabilitation.

Introduction

The musculoskeletal system is fundamental to mobility, independence and quality of life. Painful and degenerative joint disorders become increasingly important with advancing age. Osteoarthritis is one of the most common musculoskeletal disorders and predominantly affects the knees, hips, hands and spine. According to the World Health Organization, approximately 528 million people were living with osteoarthritis in 2019, and around 73% were older than 55 years¹. The knee is the most commonly affected joint.

Ayurveda describes the progressive influence of Vata with advancing age. Asthi Dhatu and Sandhi are particularly important in the clinical expression of Vata disorders because Vata has an intimate relationship with the musculoskeletal system. Sandhigata Vata is described among the Vata disorders and is clinically characterized by joint pain, swelling, crepitus and impaired movement.

Contemporary osteoarthritis and Sandhigata Vata should not be considered automatically identical entities. Rather, Sandhigata Vata provides an Ayurvedic clinical framework that overlaps substantially with the symptom complex of osteoarthritis. One published Ayurvedic clinical study explicitly adopted this correspondence because of the similarity of clinical features.

Ayurvedic management of Vata-dominant musculoskeletal conditions emphasizes measures such as Snehana, Swedana, Basti, appropriate exercise, diet, lifestyle modification and disease-specific internal medicines. Among these, Abhyanga and Swedana are relatively practical external therapies and can be incorporated into supportive rehabilitation.

The clinical importance of **Sarvanga Abhyanga followed by Swedana** lies in its potential to address several components of the Vata-dominant presentation simultaneously: dryness, stiffness, pain, reduced mobility and functional limitation.

Ayurvedic Concept of Asthi and Sandhigata Vata

Asthi Dhatu

Asthi is one of the seven Dhatus described in Ayurveda. It provides structural support to the body and participates in the maintenance of bodily stability. Ayurvedic physiology recognizes a close relationship between Asthi and Vata. This relationship is clinically relevant because degeneration of musculoskeletal tissues with age is frequently associated with increasing Vata predominance.

The clinical presentation of Asthi-related Vata disorders may include:

- Pain
- Stiffness
- Weakness
- Reduced mobility
- Degenerative changes
- Joint discomfort
- Functional limitation

These manifestations are particularly relevant in elderly individuals.

Sandhi

Sandhi denotes a joint or articulation. Joints are essential for movement and mechanical function. When Vata becomes aggravated in the region of Sandhi, symptoms such as pain and impaired movement may develop.

Sandhigata Vata²

Sandhigata Vata is generally described as a Vata disorder localized to the joints. Classical descriptions emphasize symptoms such as:

- Sandhi Shoola – joint pain
- Sandhi Shotha – swelling
- Vatapurna Druti Sparsha – characteristic sensation on palpation described in the classical context
- Akunchana/Prasarana Vedana – pain associated with flexion and extension
- Restricted joint movement
- Crepitus or joint sounds

A clinical study published in PubMed describes Sandhigata Vata as a Vata disorder involving the joints and notes pain, swelling and painful or restricted movement among its principal features.

Correlation with Osteoarthritis

Osteoarthritis is a chronic disorder involving the entire joint, including cartilage, subchondral bone, synovium and surrounding tissues. Clinically, it commonly produces pain, stiffness, swelling and difficulty with movement.

There is therefore considerable symptomatic overlap between Sandhigata Vata and osteoarthritis.

Ayurvedic manifestation	Common clinical correlate
Sandhi Shoola	Joint pain
Sandhi Stabdghata	Stiffness
Sandhi Shotha	Swelling
Sandhi Shabad	Crepitus
Akunchana-Prasarana Vedana	Painful movement
Restricted Sandhi Cheshta	Reduced range of motion
Vata predominance with ageing	Age-associated degenerative presentation

This correlation is clinically useful but should not be interpreted as proof that the two concepts are identical. Ayurveda and modern biomedicine use different explanatory frameworks.

Abhyanga: Ayurvedic Basis³

Abhyanga is the therapeutic application and massage of oil over the body. It is classically associated with the management and prevention of Vata aggravation.

The important therapeutic principles of Abhyanga include:

1. **Snehana** – oleation
2. **Vata-shamana** – pacification of aggravated Vata
3. **Mardava** – promotion of softness and suppleness
4. **Stability and nourishment**
5. **Support of musculoskeletal function**

The choice of oil should be individualized according to Prakriti, Vikriti, age, season, site involved and associated Dosha.

Commonly used oils in Vata-dominant musculoskeletal practice may include:

- Tila Taila
- Mahanarayana Taila
- Dhanwantaram Taila
- Sahacharadi Taila
- Kottamchukkadi Taila in selected clinical situations
- Other physician-selected medicated oils

The selection should not be standardized for every patient because Sandhigata Vata may present with different Dosha associations and clinical states.

Sarvanga Abhyanga⁴

Sarvanga Abhyanga means oleation/massage of the whole body rather than treatment limited to a single joint.

Principal clinical objectives

Sarvanga Abhyanga may be particularly useful when the patient presents with:

- Generalized Vata aggravation
- Musculoskeletal stiffness
- Age-related dryness
- Generalized body ache
- Reduced physical activity
- Muscular tightness associated with painful joints
- Multiple-joint involvement

It can also prepare the body for subsequent Swedana.

Although local Abhyanga is particularly relevant to a symptomatic joint, Sarvanga Abhyanga provides a broader therapeutic approach and may be

considered when symptoms are not confined to one joint

Swedana: Ayurvedic Basis⁵

Swedana refers broadly to therapeutic sudation or fomentation. In Ayurvedic practice it is used after appropriate assessment and, in many contexts, following Snehana.

The principal therapeutic objectives of Swedana include:

- Reducing stiffness
- Promoting flexibility
- Supporting mobility
- Relieving discomfort
- Producing controlled therapeutic warmth
- Facilitating the effects of prior oleation

Different forms of Swedana may be selected according to the patient's condition.

Examples include:

- Bashpa Sweda
- Nadi Sweda
- Pinda Sweda
- Patra Pinda Sweda
- Shashtika Shali Pinda Sweda
- Other appropriately selected localized or generalized forms

The choice of Swedana should be individualized rather than assuming that intense heat is appropriate for every patient.

Why Combine Abhyanga and Swedana?

The combination is clinically significant because the two procedures have complementary roles.

Abhyanga provides:

Snehana → lubrication/oleation → Vata-oriented care → tissue relaxation and preparation

Swedana provides:

Controlled warmth → reduction of stiffness → improved comfort and mobility → facilitation of movement

Therefore:

Sarvanga Abhyanga → Swedana → gentle mobilization/rehabilitation

can be considered a rational therapeutic sequence for selected Vata-dominant musculoskeletal presentations.

From a contemporary rehabilitation perspective, heat-based interventions can be useful primarily for short-term symptom relief and preparation for movement, while exercise and functional rehabilitation remain central components of osteoarthritis management. WHO emphasizes physical activity, muscle strengthening, healthy weight and rehabilitation as important components of osteoarthritis care.

Probable Mechanisms of Action

The mechanisms can be considered from both Ayurvedic and contemporary perspectives.

Ayurvedic perspective

A. Vata Shamana

Vata is characterized by qualities such as Ruksha, Laghu, Sheeta, Khara, Sukshma and Chala. Abhyanga introduces an unctuous therapeutic approach that is traditionally considered opposite to excessive Rukshata and supportive in Vata management.

Swedana introduces warmth and is particularly relevant when Sheeta and Stambha are prominent.

B. Reduction of Stambha

Stiffness is a major clinical complaint in Sandhigata Vata. Warmth after Abhyanga may help reduce the subjective feeling of stiffness and improve movement.

C. Support of Asthi-Sandhi function

The combined approach is traditionally used to support the functional integrity of joints and surrounding tissues in Vata-dominant conditions.

D. Improvement of mobility

Pain and stiffness frequently lead to reduced activity, which can further reduce muscle strength and functional capacity. A treatment that makes movement more comfortable may facilitate subsequent exercise and rehabilitation.

Contemporary Perspective

The physiological effects of massage and therapeutic heat can potentially contribute to short-term symptom relief through several pathways:

- Increased local tissue temperature
- Reduction of muscle guarding
- Improved soft-tissue extensibility
- Modulation of pain perception
- Relaxation
- Improved tolerance of movement
- Facilitation of exercise and rehabilitation

However, these mechanisms should not be interpreted as proof that Abhyanga reverses cartilage degeneration.

Osteoarthritis is a complex whole-joint disease. Current management emphasizes individualized rehabilitation, physical activity, muscle strengthening, weight management when appropriate, education and symptom control.

Thus, the most clinically defensible position is that Abhyanga and Swedana may serve as **supportive therapies for pain, stiffness, mobility and rehabilitation**, rather than being presented as established disease-modifying treatments for osteoarthritis.

Clinical Evidence

Evidence specifically evaluating Sarvanga Abhyanga plus Swedana as an isolated standardized intervention remains limited.

A clinical study⁶ of 49 patients with osteoarthritis compared Panchatikta Ghrita Guggulu combined with Abhyanga and Nadi Swedana against Abhyanga and Nadi Swedana alone. The study reported greater overall improvement in the group receiving the combined internal and external intervention. However, because multiple therapies were involved and the study was relatively small, the findings cannot establish the independent efficacy of Abhyanga and Swedana.

Another published study evaluated a multimodal Ayurvedic programme⁷ involving Snehana, Svedana, Mriduvirechana, Matrabasti, Jalaukavacharana and oral medicines in patients with Sandhigata Vata. Significant improvement was reported, but again, the study design does not allow the effects of Snehana or Svedana to be isolated from the other interventions.

A study of Nirgundi Patra Pinda Sweda⁸ with Ashwagandhadi Guggulu also reported clinical improvement in Sandhigata Vata. This provides supportive evidence for the broader role of Swedana-based Ayurvedic management, but it is not direct evidence for Sarvanga Abhyanga plus generalized Swedana as a standardized treatment.

Therefore, the present evidence can reasonably be described as **promising but insufficient for definitive conclusions**.

Proposed Clinical Protocol

The following is a **conference discussion protocol**, not a universal prescription.

Step 1: Patient assessment

Before treatment, assess:

- Age
- Prakriti
- Vikriti
- Disease duration
- Pain severity
- Joint stiffness
- Range of movement

- Functional limitation
- Body weight
- Comorbidities
- Medication history
- Skin condition
- Cardiovascular status
- Neurological status
- Presence of acute inflammation
- Red-flag symptoms

Step 2: Selection of Abhyanga

Select the oil according to the clinical presentation.

For predominantly Vata-type symptoms, an appropriate warming and unctuous oil may be selected by the treating physician.

The oil should be comfortably warm rather than excessively hot.

Step 3: Sarvanga Abhyanga

The patient is positioned comfortably and Abhyanga is performed systematically over the body, with additional attention to symptomatic joints and surrounding musculature.

Pressure should be adjusted according to:

- Age
- Body habitus
- Pain sensitivity
- Joint condition
- Skin status
- Tolerance

Deep or aggressive massage should not be assumed to be superior.

Step 4: Swedana

After Abhyanga, appropriately selected Swedana may be administered.

The intensity and duration should be individualized.

The objective is **comfortable therapeutic warmth, not excessive sweating or overheating**.

Step 5: Post-procedure rehabilitation

After adequate rest, gentle:

- Range-of-motion exercises
- Joint mobilization
- Muscle strengthening
- Functional exercises
- Walking or other appropriate activity

may be incorporated according to the patient's capacity.

This is important because contemporary osteoarthritis management strongly supports physical activity and rehabilitation.

Indications

Sarvanga Abhyanga with appropriately selected Swedana may be considered as supportive therapy in patients presenting with:

- Vata-dominant Sandhigata Vata
- Chronic musculoskeletal stiffness
- Age-associated joint discomfort
- Generalized musculoskeletal discomfort
- Reduced mobility associated with stiffness
- Multiple-joint degenerative complaints

- Muscular tightness accompanying joint disorders

Patient selection is essential.

Contraindications and Precautions⁹

Abhyanga and Swedana should not be treated as universally safe procedures for every patient.

Particular caution is required in:

- Acute febrile illness
- Acute inflammatory joint flare with significant heat/swelling
- Acute trauma
- Suspected fracture
- Severe skin disease or open wounds
- Significant sensory impairment
- Conditions associated with impaired heat sensation
- Severe dehydration
- Significant cardiovascular instability
- Uncontrolled systemic illness
- Situations where heat exposure is medically inappropriate

Excessive heat can cause burns, dehydration, dizziness or cardiovascular stress. Appropriate clinical supervision is therefore important.

Any patient with unexplained severe pain, rapidly increasing swelling, fever, significant trauma, neurological deficit or inability to bear weight should undergo appropriate medical evaluation rather than receiving routine massage or heat therapy.

Role in a Multimodal Treatment Programme

An important clinical principle is that Abhyanga and Swedana should generally be viewed as **components of multimodal care**.

A comprehensive management programme may include:

Ayurvedic interventions

- Abhyanga
- Swedana
- Basti where appropriately indicated
- Internal medicines according to diagnosis
- Pathya-Apathya
- Lifestyle modification

Rehabilitation

- Range-of-motion exercises
- Muscle strengthening
- Balance training
- Functional training
- Appropriate aerobic activity

Modern medical care when required

- Diagnostic evaluation
- Analgesic treatment
- Management of comorbidities
- Physiotherapy
- Orthopaedic consultation

- Surgical intervention in advanced disease when indicated

WHO identifies rehabilitation¹⁰ as an important component of care for osteoarthritis and includes osteoarthritis among the musculoskeletal conditions for which rehabilitation interventions are specifically addressed.

Clinical Significance

The clinical significance of Sarvanga Abhyanga and Swedana can be summarized in five major domains:

1. Symptom management

They may help reduce the subjective experience of pain and stiffness in selected patients.

2. Mobility

Reduced stiffness may make joint movement and exercise more comfortable.

3. Vata-oriented management

From the Ayurvedic perspective, the combination addresses prominent Vata qualities such as Rukshata, Sheeta and Stambha.

4. Rehabilitation support

Treatment may serve as a preparatory intervention before therapeutic exercise.

5. Holistic care

Sarvanga Abhyanga provides a whole-body approach rather than focusing exclusively on the painful joint.

Limitations of Current Evidence

Several limitations should be recognized before making strong clinical claims.

1. Published studies are generally small.
2. Many studies use multimodal Ayurvedic treatment protocols.
3. Abhyanga and Swedana are often combined with internal medicines or other Panchakarma procedures.
4. Standardization of oil, duration, temperature and treatment frequency varies.
5. Objective functional outcomes are not consistently reported.
6. Long-term follow-up is limited.
7. High-quality randomized controlled trials specifically evaluating **Sarvanga Abhyanga + Swedana** are insufficient.
8. Contemporary osteoarthritis and Ayurvedic Sandhigata Vata are conceptually related but not completely interchangeable diagnoses.

Consequently, available studies support further investigation but do not justify claiming that Sarvanga Abhyanga and Swedana are proven to reverse osteoarthritis or regenerate cartilage.

Comparative studies could evaluate:

Abhyanga + Swedana vs exercise therapy

Abhyanga + Swedana + exercise vs exercise alone

Abhyanga alone vs Swedana alone vs combined therapy

Such designs would help identify whether the combined Ayurvedic intervention provides additional clinical benefit.

Discussion

Sandhigata Vata represents an important area where Ayurvedic clinical reasoning intersects with modern musculoskeletal medicine. The disease is especially relevant in ageing populations because both Vata predominance and degenerative musculoskeletal conditions become increasingly prevalent with advancing age.

The therapeutic logic of Abhyanga and Swedana is particularly attractive when the clinical presentation is dominated by pain, stiffness, dryness and restricted movement. Abhyanga provides Snehana and is traditionally directed toward Vata management, while Swedana contributes warmth and may reduce stiffness and facilitate movement.

The sequence is also compatible with a rehabilitation-oriented approach. If a patient experiences less stiffness following a therapeutic session, it may become easier to perform range-of-motion and strengthening exercises. This is clinically relevant because exercise and maintaining physical activity are central to modern osteoarthritis management.

However, the conference presentation should avoid describing the intervention as a definitive cure or cartilage-regenerating treatment. Existing Ayurvedic

studies frequently involve multiple interventions, making it impossible to determine the independent effect of Sarvanga Abhyanga or Swedana.

Therefore, the strongest evidence-based position is that these procedures have a **potential supportive role in symptom management and functional rehabilitation**, particularly in carefully selected Vata-dominant patients.

Conclusion

Sarvanga Abhyanga and Swedana occupy an important place in the Ayurvedic management of Vata-dominant musculoskeletal disorders. Their relevance to Asthi and Sandhigata Vata arises from the Ayurvedic relationship between Vata, Asthi, Sandhi, ageing, degeneration, stiffness and impaired movement. The combination of Snehana and Swedana provides a rational therapeutic sequence for selected patients presenting predominantly with pain, stiffness and restricted mobility. Published clinical literature offers preliminary supportive evidence for Abhyanga- and Swedana-based approaches in Sandhigata Vata, but the existing studies are generally small and often involve multiple simultaneous interventions.

Accordingly, Sarvanga Abhyanga and Swedana should currently be positioned as **supportive, individualized interventions within an integrated Ayurvedic and rehabilitation framework**, rather than as established stand-alone disease-modifying treatments for osteoarthritis.

Well-designed randomized controlled trials are required to establish their efficacy, optimal treatment protocol, safety and long-term clinical significance.

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