

**ROLE OF VIDDHA KARMA AND AGNIKARMA WITH PANCHADHATU SHALAKA IN THE MANAGEMENT OF JANU SANDHIGATA VATA (KNEE OSTEOARTHRITIS): A REVIEW AND RATIONALE FOR COMPARATIVE CLINICAL EVALUATION.**

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ABSTRACT **Background:** Janu Sandhigata Vata, comparable to osteoarthritis of the knee, is a prevalent degenerative disorder associated with pain, stiffness, restricted mobility, and impaired quality of life. Classical Ayurvedic texts describe multiple therapeutic approaches for Sandhigata Vata, among which Viddha Karma and Agnikarma are important para-surgical interventions, particularly indicated in pain-dominant conditions involving Sandhi, Snayu, and Asthi. **Objective:** To review the Ayurvedic and contemporary rationale for Viddha Karma and Agnikarma in Janu Sandhigata Vata and provide a scientific basis for comparative clinical evaluation. **Methods:** Classical references from Charaka Samhita, Sushruta Samhita, Ashtanga Hridaya, and published research on osteoarthritis and Ayurvedic para-surgical interventions were reviewed. **Results:** Both Viddha Karma and Agnikarma demonstrate potential analgesic, functional, and disease-modifying benefits. However, direct comparative clinical evidence between these two procedures remains limited. **Conclusion:** Comparative evaluation of Viddha Karma and Agnikarma may help establish evidence-based integrative management options for knee osteoarthritis and revalidate classical Ayurvedic principles.

KEYWORDS : Janu Sandhigata Vata, Osteoarthritis, Viddha Karma, Agnikarma, Panchadhatu Shalaka, Ayurveda, Pain Management

INTRODUCTION

Pain is one of the commonest causes prompting patients to seek medical care, particularly when weight-bearing joints such as Janu Sandhi (knee joint) are involved. In Ayurveda, Sandhigata Vata is described under Vata Vyadhi and presents with symptoms corresponding to osteoarthritis, including pain (Shoola), stiffness (Stambha), crepitus (Atopa), swelling (Shotha), and restricted movement (Sandhigati Hani).

Among all joints, the knee is particularly susceptible owing to continuous locomotor stress and age-related degeneration. In contemporary medicine, osteoarthritis is characterized by progressive degeneration of articular cartilage, subchondral bone remodeling, inflammation, pain, and functional limitation.

Conventional management often relies on analgesics, anti-inflammatory drugs, physiotherapy, and surgery in advanced stages. However, long-term pharmacological management may be associated with adverse effects and often offers symptomatic rather than definitive relief.

Ayurveda provides both internal and external management approaches for Sandhigata Vata. Snehana, Swedana, Upanaha, Bandhana, and Unmardana are traditionally described therapies. In pain-predominant conditions, Acharya Sushruta also advocated Agnikarma, while Viddha Karma (a form of therapeutic puncturing/bloodletting approach) has been described for pain alleviation.

These two interventions deserve comparative scientific evaluation in Janu Sandhigata Vata.

Review of Literature**Ayurvedic Perspective of Sandhigata Vata**

Charaka describes Sandhigata Vata under Vata disorders, where aggravated Vata localizes in joints and produces pain, swelling, and restricted movement.

Sushruta emphasizes Sandhi and Asthi involvement and recommends:

- Snehana
- Upanaha
- Bandhana
- Unmardana
- Agnikarma

Janu Sandhi is also considered a Marma, highlighting clinical significance.

Pathogenesis

According to Ayurvedic principles:

- Vata Prakopa
- Dhatu Kshaya
- Asthi and Sandhi Dushti
- Madhyama Roga Marga involvement contribute to chronicity and therapeutic difficulty.

Modern Perspective: Osteoarthritis of Knee

Knee osteoarthritis involves:

- Cartilage degeneration
- Osteophyte formation
- Synovial inflammation
- Joint space narrowing
- Progressive disability

Clinical features closely resemble Janu Sandhigata Vata.

Viddha Karma**Conceptual Basis**

Viddha Karma involves therapeutic puncturing at selected painful or tender points.

In this proposed protocol:

- Insulin Needle No. 26
- Maximum tenderness points
- Depth approximately 0.5 cm
- Retention for 10 seconds
- Once weekly for 3 weeks

Proposed Mechanisms

Possible mechanisms may include:

1. Local stimulation-induced analgesia
2. Microcirculatory improvement
3. Relief of localized Vata aggravation
4. Trigger-point modulation
5. Neurovascular reflex effects

This may be discussed using both Ayurvedic and modern pain-modulation perspectives.

Agnikarma with Panchadhatu Shalaka**Procedure Overview**

- Panchadhatu Shalaka heated for approximately 8 seconds
- Direct conductive application at tenderness points
- Achievement of Samyak Dagdha Lakshana
- Application of Go-ghrita post-procedure

Proposed Therapeutic Actions

Potential mechanisms:

- Local thermal analgesia
- Improved circulation
- Reduction of stiffness
- Neuromodulation of pain pathways
- Possible anti-inflammatory effects

Classical texts also emphasize lower recurrence following properly performed Agnikarma.

Comparative Rationale

Though both interventions are used clinically, comparative evidence is limited.

Potential comparative dimensions include:

Parameter	Viddha Karma	Agnikarma
Pain relief	Expected	Expected
Stiffness reduction	Moderate	Potentially strong
Functional improvement	Expected	Expected
Procedure invasiveness	Minimal	Moderate
Cost-effectiveness	High	High

This justifies comparative clinical evaluation.

Proposed Clinical Evaluation Framework

Study Design

Randomized comparative clinical trial.

Sample

100 patients

- Group A: Viddha Karma (n=50)
- Group B: Agnikarma (n=50)

Outcome Measures

Subjective:

- Visual Analogue Scale (VAS)
- Morning stiffness
- WOMAC score

Objective:

- Crepitus grading
- Swelling
- Goniometric range of motion
- Tenderness grading

Follow-up:

Day 7, 14, 21, 28, 35

DISCUSSION

Both Viddha Karma and Agnikarma appear conceptually relevant for management of pain-dominant degenerative knee disorders.

Viddha Karma may work through puncture-mediated stimulation and localized dosha modulation, while Agnikarma may combine thermal and neurophysiological mechanisms.

From a contemporary perspective, these procedures may resemble minimally invasive pain interventions and thermal modulation strategies.

Because existing literature has mostly evaluated these procedures individually rather than comparatively, a randomized clinical study may contribute significantly to evidence generation.

Further, standardization of Panchadhatu Shalaka Agnikarma may contribute to procedural reproducibility in Ayurvedic research.

Knowledge Gap

Although previous studies have explored Agnikarma or Viddha Karma independently in musculoskeletal disorders, direct randomized comparative evidence evaluating these two interventions in Janu Sandhigata Vata remains scarce.

This gap warrants systematic clinical investigation.

CONCLUSION

Janu Sandhigata Vata remains a significant clinical challenge.

Viddha Karma and Agnikarma represent important para-surgical Ayurvedic interventions with promising analgesic and functional benefits. Comparative evaluation may help establish evidence-based therapeutic positioning for both modalities and strengthen integration

of classical Ayurvedic procedures into modern musculoskeletal care.

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