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Agnikarma, Viddhakarma, and Marma Therapy in the Management of Janu Sandhigata Vata (Osteoarthritis): An Integrative Review

Dr. Priyanka Kumari¹, Prof. Mahendra Kumar Sharma²

1. Associate Professor, Department of Rachana Sharira, Naiminath Ayurvedic Medical College, Agra, and PhD Scholar, PG Department of Rachna Sharir, PGIA, DSRRAU, Jodhpur
2. Professor and H.O.D., PG Department of Rachna Sharir, PGIA, DSRRAU, Jodhpur

Corresponding Author: Dr. Priyanka Kumari

Abstract

Introduction: *Janu Sandhigata Vata*, correlating with osteoarthritis (OA), is a prevalent degenerative joint disorder characterized by pain, stiffness, and functional impairment. Conventional management strategies often provide symptomatic relief but are associated with adverse effects and fail to address disease progression. Ayurvedic parasurgical interventions *Agnikarma* (therapeutic cauterization), *Viddhakarma* (therapeutic needling), and *Marma* therapy (vital point stimulation) offer potential non-pharmacological alternatives. This integrative review synthesizes available evidence on these three interventions in *Janu Sandhigata Vata* management. **Methods:** A comprehensive literature search was conducted across PubMed, Scopus, AYUSH, and other databases for studies published up to 2026. Clinical trials, case series, and review articles evaluating *Agnikarma*, *Viddhakarma*, or *Marma* therapy in *Janu Sandhigata Vata*/OA were included. Data on therapeutic mechanisms, clinical outcomes, and safety profiles were extracted and analysed. **Results:** *Agnikarma* demonstrates significant efficacy in pain reduction (up to 86% relief in *Sandhishula*), improved range of motion, and sustained relief beyond three months. *Viddhakarma*, alone or combined with *Agnikarma* as *Viddhaagnikarma*, provides rapid pain relief through mechanical and thermal stimulation. *Marma* therapy offers non-invasive pain management by balancing local *Vata* and *Kapha Dosha*, with studies reporting significant improvements in pain, stiffness, and functional outcomes. **Discussion:** All three therapies act through distinct yet complementary mechanisms *Agnikarma* via thermal modulation of *Vata*, *Viddhakarma* through neural and endorphin-mediated pathways, and *Marma* therapy via *Prana* flow regulation. Their integration offers a comprehensive approach addressing multiple facets of *Janu Sandhigata Vata* pathophysiology. **Conclusion:** *Agnikarma*, *Viddhakarma*, and *Marma* therapy are effective, safe, and cost-effective interventions for *Janu Sandhigata Vata* management. Further large-scale randomised controlled trials are warranted to establish standardised protocols and long-term efficacy.

Keywords: *Agnikarma, Viddhakarma, Marma* therapy, *Janu Sandhigata Vata*, Osteoarthritis, Ayurveda

1. Introduction

Janu Sandhigata Vata, a clinical condition described under *Vatavyadhi* in Ayurvedic classics, presents with cardinal features of *Sandhishula* (joint pain), *Sandhishotha* (joint swelling), and *Sandhistabdhata* (joint stiffness) [1]. It correlates closely with osteoarthritis (OA), the most common form of articular disorder worldwide. The global burden of OA is substantial, with prevalence rates in India ranging from 22% to 39% [2]. The condition primarily affects weight-bearing joints, particularly the knee joint (*Janu Sandhi*), and is characterised by progressive degeneration of articular cartilage, subchondral bone changes, and synovial inflammation [3].

In Ayurvedic pathophysiology, *Janu Sandhigata Vata* arises from the vitiation of *Vata Dosha* localised in the *Sandhi* (joints). This occurs predominantly in *Vridhnavastha* (old age) due to *Dhatukshaya* (tissue depletion), which leads to *Vataprakopa*. The *Ashraya-Ashrayi Sambandha* (interdependent relationship) between *Vata* and *Asthi Dhatu* (bone tissue) renders joints particularly susceptible to *Vata*-mediated degeneration [1]. Factors such as improper diet, sedentary lifestyle, trauma, and occupational stress further contribute to disease pathogenesis.

Conventional management of OA relies on non-steroidal anti-inflammatory drugs (NSAIDs), analgesics, physical therapy, and ultimately joint replacement surgery. However, these approaches have limitations: NSAIDs carry risks of gastrointestinal and cardiovascular adverse effects, opioids pose dependency concerns, and surgical interventions are invasive and costly [4]. There is no definitive conservative treatment that can reverse degenerative changes to normal. Consequently, pain management and improvement of quality of life remain the primary therapeutic objectives.

Ayurveda offers a range of therapeutic modalities for *Janu Sandhigata Vata*, including *Sneha* (oleation), *Upanaha* (poultice), *Bandhana* (bandaging), and *Agnikarma*. Among these, parasurgical procedures *Agnikarma*, *Viddhakarma*, and *Marma* therapy have gained increasing attention for their targeted, non-pharmacological approach to pain management. Acharya Sushruta, the ancient surgeon, emphasised *Agnikarma* for pain management, particularly when severe pain occurs in *Twak* (skin), *Mamsa* (muscle), *Sira* (vessels), *Snayu* (ligaments/tendons), *Sandhi* (joints), and *Asthi* (bones) due to *Vata Prakopa* [5]. *Viddhakarma*, another parasurgical technique, involves precision needling at specific anatomical points [6], while *Marma* therapy focuses on stimulating vital energy points (*Marmas*) to restore *Doshic* balance [7].

This integrative review aims to synthesise available evidence on *Agnikarma*, *Viddhakarma*, and *Marma* therapy in the management of *Janu Sandhigata Vata* (osteoarthritis). The specific objectives are: (1) to elucidate the Ayurvedic theoretical basis and procedural aspects of each therapy; (2) to evaluate clinical evidence for their efficacy; (3) to explore their mechanisms of action; and (4) to assess their comparative advantages and integration potential in clinical practice.

2. Methods

2.1 Search Strategy

A comprehensive literature search was conducted using electronic databases including PubMed, Scopus, AYUSH Research Portal, Google Scholar, and the Cochrane Library. The search covered publications from database inception to July 2026. Search terms included combinations of: "Agnikarma," "Viddhakarma," "Viddha Karma," "Marma therapy," "Marma Chikitsa," "*Janu Sandhigata Vata*," "Sandhivata," "osteoarthritis," "knee osteoarthritis," "*Janu Janu Sandhigata Vata*," and "Ayurveda." Boolean operators (AND, OR) were used to refine searches.

2.2 Inclusion and Exclusion Criteria

Studies were included if they: (1) evaluated *Agnikarma*, *Viddhakarma*, or *Marma* therapy in patients with *Janu Sandhigata Vata* or osteoarthritis; (2) reported clinical outcomes including pain, stiffness, range of motion, or functional scores; (3) were published in peer-reviewed journals; and (4) were available in English. Case reports, case series, clinical trials, and systematic reviews were included. Studies focusing on other musculoskeletal conditions without specific reference to *Janu Sandhigata Vata/OA* were excluded, as were non-English publications without available translation.

2.3 Data Extraction and Synthesis

Data were extracted independently by reviewers using a standardised form capturing: study design, sample size, intervention details, outcome measures, results, and adverse events. Given the heterogeneity of study designs and outcome measures, a narrative synthesis approach was adopted. Findings were organised thematically according to therapy type, with comparative analysis across interventions.

3. Results

3.1 *Agnikarma* in *Janu Sandhigata Vata*

3.1.1 Ayurvedic Basis and Procedure

Agnikarma, meaning "therapeutic cauterisation" or "thermal therapy," is a parasurgical procedure wherein controlled heat is applied to specific body areas using various materials. Acharya Sushruta extensively described *Agnikarma* as a treatment modality for *Vata Vyadhi*, including *Janu Sandhigata Vata* [5]. The classical text *Bhaishajya Ratnavali* mentions a variant using *Suchi* (needle), known as *Viddha Agnikarma* [8].

The procedure involves the application of heated *Shalakas* (metallic rods) made from materials such as *Panchadhatu* (five metals), *Rajata* (silver), *Loha* (iron), or *Suvarna* (gold). More recently, modified methods using electrocautery and acupuncture needles have been developed [9]. The thermal energy is applied at specific points over the affected joint, with the intensity and duration determined by the *Doshic* involvement and tissue depth.

3.1.2 Clinical Evidence

Multiple clinical studies have demonstrated the efficacy of *Agnikarma* in *Janu Sandhigata Vata*. Jethava et al. (2015) evaluated *Agnikarma* with *Rajata* and *Loha Dhatu Shalaka* in 28 patients with *Janugata Sandhivata*, concluding that *Agnikarma* is an effective non-pharmacological parasurgical procedure for pain management. The study found that *Loha Shalaka* provided better results in pain relief than *Rajata Shalaka* [10].

A randomised controlled trial by Sharma et al. (2016) compared *Agnikarma* alone versus *Agnikarma* combined with *Panchatikta Guggulu* in 33 patients. In *Sandhishula* (pain), 86% relief was found in the *Agnikarma*-alone group, while 77.78% relief was obtained in the combination group. Tenderness was reduced by 69% in the *Agnikarma* group and 87.78% in the combination group. Crepitus improved by 39% and 46.67% respectively, while stiffness showed 63% relief in both groups. Notably, patients experienced relief after the first sitting of *Agnikarma*, with sustained effects for more than three months in most patients. Radiological findings showed no significant difference before and after treatment in either group [11].

Rathod and Dudhamal (2024) reported a case series of four patients with *Janu Janu Sandhigata Vata* treated with a modified *Agnikarma* method using acupuncture needles and monopolar electrocautery. A total of four sittings were conducted at weekly intervals, with assessments using the WOMAC score.

Marked improvement was observed in pain, range of movement, and quality of life. The modified method was found to be effective in the management of *JanuJanu Sandhigata Vata* [9].

A comparative study indicated that *Agnikarma* combined with oral drug preparation yielded better outcomes in crepitus and stiffness reduction than *Agnikarma* alone, suggesting synergistic effects when combined with internal Ayurvedic formulations [11].

3.1.3 Mechanisms of Action

The therapeutic effects of *Agnikarma* are attributed to multiple mechanisms. In Ayurvedic terms, the *Ushna Guna* (hot quality) of *Agni* pacifies the *Shita Guna* (cold quality) of *Vayu*, thereby reducing joint pain in *Janu Sandhigata Vata* [1]. Acharya Charaka described *Agni* as the best treatment for pain management [12]. The concept of *Avarana* (covering/obstruction) in Ayurvedic pathophysiology explains that *Kapha* or *Meda* may obstruct *Vata*, hampering its proper *Gati* (movement) and creating *Shoola* (pain). *Ushna Guna* of *Agni* helps remove this *Avarana* and stabilises *Vata* movement [5].

From a modern physiological perspective, therapeutic heat application increases local blood circulation, leading to proper nutrition of joint tissues. Increased circulation helps flush away pain-producing substances and reduces local inflammation. Heat application also increases local metabolism, facilitating the excretion of accumulated metabolic waste products responsible for pain. In chronic inflammation characteristic of OA, heat application may help subside inflammatory changes. The reduction in crepitus following *Agnikarma* suggests increased synovial lubrication, although osteophytes remain structurally unchanged [10].

3.2 Viddhakarma in Janu Sandhigata Vata

3.2.1 Ayurvedic Basis and Procedure

Viddhakarma, meaning "therapeutic needling" or "puncturing," is one of the eight *Shastrakarma* (surgical procedures) described by Acharya Sushruta [6]. It involves the piercing of sterile hollow needles at specific points of the body for pain relief. *Viddhakarma* is classified under the broader category of *Siravyadha* (vein puncture) and is indicated for various *Vata* disorders.

The procedure is typically performed using specialised needles at precise anatomical locations, including *Marma* points. When combined with *Agnikarma*, the technique is termed *Viddhaagnikarma*, representing an integrative approach that combines mechanical and thermal stimulation [8].

3.2.2 Clinical Evidence

While direct studies on *Viddhakarma* alone in *Janu Sandhigata Vata* are limited, emerging evidence supports its efficacy. A clinical study evaluating *Viddhakarma*'s role in pain management of musculoskeletal diseases found promising results [13]. *Viddha-agnikarma*, the combined procedure, has shown effectiveness in managing lower back and knee joint pain [13].

A comparative clinical trial is underway to study the effect of *Viddhakarma* versus *Agnikarma* by *Panchadhatu Shalaka* in *JanuJanu Sandhigata Vata* [14]. The findings of *Viddha-agnikarma* studies indicate that this combined therapy is an effective non-pharmacological alternative for chronic pain management, with potential benefits over conventional treatments. *Viddhaagnikarma* has been applied to manage pain across various conditions including knee OA, calcaneal spur, frozen shoulder, and sciatica [8].

3.2.3 Mechanisms of Action

Viddhakarma exerts its therapeutic effects through multiple pathways. Both *Agnikarma* and *Viddhakarma* stimulate peripheral nerves and mechanoreceptors, leading to blockage of pain receptors and promoting the release of endorphins, ultimately reducing pain and enhancing local mobility [13].

Viddhaagnikarma employs dual-action mechanisms: mechanical stimulation through needling and thermal stimulation through cauterisation. This combined approach provides immediate and long-term relief through endorphin release, enhanced blood circulation, and tissue regeneration. Compared to acupuncture, *Viddhaagnikarma*'s use of localised heat adds unique therapeutic benefits, including reduced inflammation and increased metabolic activity at the cellular level [8].

The mechanical stimulation of *Viddhakarma* likely activates endogenous pain inhibitory pathways, while thermal stimulation enhances local circulation and metabolic clearance of inflammatory mediators. This dual approach engages both physiological and neurological pain pathways, aligning with modern concepts of pain modulation [13].

3.3 Marma Therapy in Janu Sandhigata Vata

3.3.1 Ayurvedic Basis and Procedure

Marma therapy is based on the concept of *Marma* vital anatomical points where *Prana* (life energy) resides. Acharya Sushruta described 107 *Marma* points in the *Sharirsthana*, highlighting their importance in "*Marma Vigyana*" (the science of vital points) [15]. *Marma* points are junctions where *Mamsa* (muscle), *Sira* (vessels), *Snayu* (ligaments), *Asthi* (bone), and *Sandhi* (joints) meet, and are considered seats of *Prana* [7].

Marma therapy involves the gentle stimulation of these vital points through pressure, massage, or other non-invasive techniques. For *Janu Janu Sandhigata Vata* (knee OA), therapy typically involves four *Marma* points of the legs: *Kshipra*, *Gulpha*, *Indravasti*, and *Janu*. The therapy can be self-administered after training, making it accessible for long-term management [16].

3.3.2 Clinical Evidence

Kumar et al. (2020) conducted a clinical study on the effect of *Marma* therapy in 15 diagnosed cases of *Janu Sandhigata Vata*. Patients were treated with *Marma* therapy application, and results were analysed based on subjective and objective parameters. The study concluded that *Marma* therapy provides instant relief from pain by balancing local *Vata* and *Kapha Dosha* without any untoward effects. No complications were observed [7].

A single case study reported a 52-year-old female patient with right knee joint pain, swelling, and stiffness for one year who received *Marma Chikitsa*. After 21 days of therapy, she obtained significant relief in pain and stiffness [17]. The study highlighted *Marma* therapy as a non-pharmacological treatment providing prompt and sustained relief.

A study evaluating *Marma* Therapy with *Janu Basti* in *Janu Janu Sandhigata Vata* reported 32.79% relief in *Sandhi Atopa* (crepitus), which was statistically significant ($p < 0.001$) [16]. The results indicated the efficacy of *Marma* Therapy in the long-term self-management of *Janu Janu Sandhigata Vata*.

A randomised controlled trial protocol comparing *Marma Chikitsa* and *Agnikarma* in pain management of the knee joint is currently underway. The study aims to evaluate efficacy using VAS, WOMAC Index, and ROM assessments at 0, 7, 15, and 30 days [18].

3.3.3 Mechanisms of Action

Marma therapy works through the regulation of *Prana* flow. *Marmas* are considered seats of *Prana*, and their proper stimulation can regulate the flow of life energy throughout the body. Through connection with the *Sattva Guna* (mind), proper stimulation of *Marmas* can influence both physical and mental health [7].

From a physiological perspective, *Marma* stimulation may activate local neural pathways, improve microcirculation, and release endogenous pain-modulating substances. The therapy is thought to balance local *Vata* and *Kapha Dosha*, addressing both the pain (*Vata*) and swelling/stiffness (*Kapha*) components of *Janu Sandhigata Vata* [16].

3.4 Comparative Analysis

Table 1 summarises the key characteristics of the three therapies:

Parameter	<i>Agnikarma</i>	<i>Viddhakarma</i>	<i>Marma</i> Therapy
Nature	Parasurgical (thermal)	Parasurgical (needling)	Non-pharmacological
Instruments	Heated <i>Shalaka</i> /Electrocautery	Sterile hollow needles	None (hands/fingers)
Mechanism	Thermal modulation of <i>Vata</i>	Neural stimulation + endorphin release	<i>Prana</i> flow regulation
Pain relief	Immediate, sustained >3 months	Immediate	Immediate
Invasiveness	Minimally invasive	Minimally invasive	Non-invasive
Cost	Moderate	Moderate	Low
Self-administration	No	No	Yes (after training)
Complications	Possible if improperly performed	Minimal	None reported

4. Discussion

4.1 Therapeutic Mechanisms and Integration

The three therapies examined in this review *Agnikarma*, *Viddhakarma*, and *Marma* therapy represent a spectrum of Ayurvedic interventions ranging from minimally invasive parasurgical procedures to completely non-invasive manual therapy. Their mechanisms, while distinct, are complementary and can be integrated for comprehensive *Janu Sandhigata Vata* management.

Agnikarma's primary mechanism is thermal modulation of vitiated *Vata Dosha*. The *Ushna Guna* of *Agni* counteracts the *Shita Guna* of *Vayu*, addressing the fundamental *Doshic* imbalance in *Janu Sandhigata Vata* [1,5]. Modern physiological correlates include increased local circulation, enhanced tissue nutrition, flushing of inflammatory mediators, and activation of thermoreceptor-mediated pain inhibition pathways [10]. The sustained relief beyond three months suggests possible long-term neuromodulatory effects [11].

Viddhakarma adds a mechanical dimension through precision needling. The stimulation of peripheral nerves and mechanoreceptors triggers endorphin release and pain receptor blockade [13]. When combined with *Agnikarma* as *Viddhaagnikarma*, the dual mechanical-thermal approach provides both immediate and long-term benefits. This combination may be particularly valuable for patients with severe, refractory pain [8].

Marma therapy represents the least invasive option, relying on gentle stimulation of vital points to regulate *Prana* flow. Its non-invasive nature, lack of complications, and potential for self-administration make it an attractive option for long-term maintenance therapy [7]. The significant improvement in crepitus (32.79% relief, $p < 0.001$) suggests possible effects on synovial fluid dynamics or cartilage metabolism [16].

4.2 Clinical Implications

The clinical evidence supports the use of all three therapies in *Janu Sandhigata Vata* management, with specific indications for each:

Agnikarma is particularly indicated for patients with severe pain as the predominant symptom. Its rapid onset of action and sustained relief make it suitable for acute exacerbations and patients who have failed conservative management [10,11]. The availability of modified methods using electrocautery expands its accessibility in modern clinical settings [9].

Viddhakarma, especially as *Viddhaagnikarma*, may be preferred for patients with both pain and significant functional limitation, as the mechanical component may provide additional benefits for joint mobility. Its applicability across multiple musculoskeletal conditions suggests versatility in clinical practice [8,13].

Marma therapy is ideal for patients seeking non-invasive options, those with contraindications to parasurgical procedures, and for long-term self-management. Its cost-effectiveness and minimal complications make it suitable for resource-limited settings and primary care [7,16,17].

4.3 Safety and Contraindications

Agnikarma has several contraindications including use in *Pitta Prakruti* (constitutional *Pitta* dominance), children, elderly patients, those with multiple wounds, and during summer [5]. Improperly performed *Agnikarma* can cause complications including burns, infection, and scarring, and requires specialised instruments [10].

Viddhakarma, when performed with sterile technique, has minimal complications. However, proper training is essential to avoid injury to underlying structures [6].

Marma therapy has no reported complications and can be safely administered even in vulnerable populations. Its safety profile makes it particularly attractive for elderly patients who constitute the majority of *Janu Sandhigata Vata* cases [7].

4.4 Limitations and Future Research Directions

This integrative review has several limitations. The available evidence consists predominantly of small case series and uncontrolled trials, with few large-scale randomised controlled trials. Heterogeneity in outcome measures and treatment protocols limits direct comparability. Many studies lack long-term follow-up data beyond three months.

Future research should prioritise:

1. Large-scale, multi-centre randomised controlled trials comparing these therapies with standard conventional treatments.
2. Standardisation of treatment protocols including optimal frequency, duration, and combination strategies.
3. Long-term follow-up studies to assess durability of effects and impact on disease progression.
4. Mechanistic studies using modern imaging and biomarker analyses.

5. Cost-effectiveness analyses to inform healthcare policy.
6. Comparative studies of traditional versus modified (electrocautery) *Agnikarma* methods [9].

4.5 Integrative Approach

The integration of *Agnikarma*, *Viddhakarma*, and *Marma* therapy with conventional OA management offers a comprehensive, patient-centred approach. The three therapies can be sequenced or combined based on disease stage and patient preference: acute pain episodes may benefit from *Agnikarma* or *Viddhaagnikarma*, while *Marma* therapy serves as maintenance therapy [8,11]. Combining these interventions with internal Ayurvedic formulations such as *Panchatikta Guggulu* may provide synergistic benefits [11].

The holistic nature of Ayurvedic management, addressing not only symptoms but also underlying *Doshic* imbalances and lifestyle factors, aligns with current emphasis on personalised, integrative medicine. The low cost, minimal invasiveness, and favourable safety profiles of these interventions make them particularly relevant for managing the growing global burden of osteoarthritis [2,4].

5. Conclusion

Agnikarma, *Viddhakarma*, and *Marma* therapy represent effective, safe, and cost-effective Ayurvedic interventions for the management of *Janu Sandhigata Vata* (osteoarthritis). *Agnikarma* demonstrates significant efficacy in pain reduction, with sustained relief beyond three months, and can be effectively delivered using either traditional *Shalakas* or modified electrocautery methods [9–11]. *Viddhakarma*, particularly as *Viddhaagnikarma*, provides dual mechanical and thermal stimulation for rapid and sustained pain relief [8,13]. *Marma* therapy offers a non-invasive alternative with no complications and potential for self-administration in long-term management [7,16,17].

The three therapies operate through distinct yet complementary mechanisms thermal modulation of *Vata*, neural stimulation with endorphin release, and *Prana* flow regulation providing a comprehensive approach addressing multiple facets of *Janu Sandhigata Vata* pathophysiology. Their integration with internal Ayurvedic formulations and conventional management strategies offers a holistic, patient-centred paradigm for OA care.

Further large-scale, rigorous clinical trials are warranted to establish standardised protocols, confirm long-term efficacy, and elucidate mechanisms of action [18]. Nonetheless, the existing evidence supports the incorporation of these time-tested Ayurvedic interventions into integrative management strategies for *Janu Sandhigata Vata*, potentially reducing dependence on pharmacotherapy and improving quality of life for millions affected by osteoarthritis worldwide [4].

References

1. Shastri A, editor. *Charaka Samhita* of Agnivesha, *Chikitsasthana*, chapter 28, Verse no. 37. Reprint edition. Varanasi: Chaukhambha Bharati Academy; 2012.
2. Vos T, Abajobir AA, Abate KH, et al. Global, regional, and national incidence, prevalence, and years lived with disability for 328 diseases and injuries for 195 countries, 1990-2016: a systematic analysis for the Global Burden of Disease Study 2016. *Lancet*. 2017;390(10100):1211-1259.
3. Hunter DJ, Bierma-Zeinstra S. Osteoarthritis. *Lancet*. 2019;393(10182):1745-1759.
4. Chou R, Turner JA, Devine EB, et al. The effectiveness and risks of long-term opioid therapy for chronic pain: a systematic review for a National Institutes of Health Pathways to Prevention Workshop. *Ann Intern Med*. 2015;162(4):276-286.
5. Shastri A, editor. *Susruta Samhita* of Maharsi Susruta, *Sutrasthana*, chapter 1, Verse no. 6. Reprint edition. Varanasi: Chaukhambha Sanskrit Sansthan; 2012.
6. *Sushruta Samhita, Sharirasthana*, chapter 5. In: Acharya JT, editor. *Sushruta Samhita* with *Nibandhasangraha* commentary. Varanasi: Chaukhambha Orientalia; 1992.
7. Kumar V, Joshi SK. Effect of *Marma* Therapy on *Janu Sandhigata Vata* w.s.r. to Osteoarthritis. *J Ayurveda Integr Med Sci*. 2020;5(5). DOI: 10.21760/jaims.v5i05.1023.
8. Eiram A, Muralidhara N, Sweta KM. The Transformative Potential of *Viddhaagnikarma* – Bridging Tradition and Innovation in Pain Relief. *J Ayurveda Integr Med Sci*. 2024;9(12).
9. Rathod KR, Dudhamal TS. Modified Method of *Agnikarma* by the Use of Electrocautery in the Management of *JanuJanu Sandhigata Vata* (Osteoarthritis of Knee Joint): A Case Series. *AYUHOM*. 2024;11(2):176-180. DOI: 10.4103/AYUHOM.AYUHOM_5_24.
10. Jethava NG, Dudhamal TS, Gupta SK. Role of *Agnikarma* in *Janu Sandhigata Vata* (osteoarthritis of knee joint). *Ayu*. 2015;36(1):23-28.
11. Sharma AV, et al. Clinical study of *Agnikarma* and *Panchatikta Guggulu* in the management of *Sandhivata* (osteoarthritis of knee joint). *Ayu*. 2016;37(1):38-44.
12. *Charaka Samhita, Sutrasthana*, chapter 25. In: Shastri K, editor. *Charaka Samhita* with *Vidyotini* Hindi commentary. Varanasi: Chaukhambha Bharati Academy; 1988.
13. Hanswal N, Chaturvedi P. Therapeutic Potential of *Agnikarma* and *Viddhakarma* in Lifestyle Disorders – A Review Article. *World J Pharm Res*. 2023;12(7):456-468.
14. Clinical Trial Registry – CTRI/2024/05/067894. Effect of *Viddhakarma* versus *Agnikarma* in *JanuJanu Sandhigata Vata*. [cited 2026 Jul 29].
15. *Sushruta Samhita, Sharirasthana*, chapter 6. In: Acharya JT, editor. Varanasi: Chaukhambha Orientalia; 1992.
16. Evaluation of Efficacy of *Marma* Therapy with *Janu Basti* in the Management of *Janu Janu Sandhigata Vata* (Osteoarthritis of Knee). *Shodhganga*. [cited 2026 Jul 29]; available from: <http://shodhganga.inflibnet.ac.in>.
17. Effect of *Marma Chikitsa* in pain management of *Sandhivata* (Osteoarthritis) – A Single Case Study. *J Ayurveda Integr Med Sci*. 2024;9(3):145-148.

18. Mhaske M, Deshpande A, Sawarkar G. Comparative Study on Efficacy of *Marma Chikitsa* and *Agnikarma* in Pain Management of Knee Joint: Protocol for a Randomised Controlled Trial. J Clin Diagn Res. 2026;20(7):JK24-JK27.

