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SHORT REVIEW

Integrating *Ayurveda* into Modern Healthcare: A Study on *Matra Basti* and *Agni Karma* for *Plantar Fasciitis* [*Vatakantaka*]

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ABSTRACT

Background: *Plantar Fasciitis (Vatakantaka)* is usually associated with heel pain and low back pain, resulting from *plantar fascia* inflammation due to *Vata dosha* imbalance. It induces severe pain and affects movement. *Ayurvedic* traditional therapies are promising to minimise the symptoms. **Aim**: This Narrative review assesses the efficacy and mechanisms of two classical *Ayurvedic* therapies, *Matra Basti* and *Agni Karma*, in *Plantar fasciitis* treatment by the effects, safety, and possible outcomes. **Methods**: The Narrative review integrates classical *Ayurvedic* literature and current clinical trials to study the therapeutic effect of *Matra Basti*, a rectal insufflation of medicated oils, and *Agni Karma*, a para-surgical procedure performed by thermal cauterisation. The two therapies are studied for their anti-inflammatory, analgesic, and tissue-healing effects. **Results**: *Matra Basti* improves *Vata* regulation at the systemic level and alleviates pain significantly by improving medicated oil bioavailability. Through controlled heat application, Agni Karma provokes tissue repair, inflammation reduction, and long-term pain relief. The interventions were safe, low-risk, and effective in managing chronic musculoskeletal pain, particularly plantar fasciitis. **Conclusion**: Incorporating *Matra Basti* and *Agni Karma* into current healthcare practice provides a non-invasive, holistic solution for *treating Plantar fasciitis*. Both treatments provide promising outcomes in the management of *Vata dosha* imbalance and chronic pain, providing a complementary solution to the current treatment.

Major Findings: New evidence suggests that *Matra Basti* and *Agni Karma* are safe, low-risk, and effective *Ayurvedic* treatments for managing plantar fasciitis with long-term pain relief and tissue healing.

Keywords: Anti-Inflammatory Agents, *Ayurveda*, Basti Therapy, Cautery, Pain Management, *Plantar fasciitis*, *Vata*

1. Introduction

Vatakantaka, or *Plantar fasciitis*, is a condition where the heel pain is due to plantar fascia inflammation. This condition often arises due to the imbalance of *Vata dosha*, one of the three fundamental bioenergies in *Ayurveda*. This condition comes under *Vata-vyadhi*, a disorder due to *Vata dosha's* vitiation. Vata dosha controls movement and activity in the body. Even though *Plantar fasciitis*, *Vatakantaka*, is not defined as a disease in the authoritative *Ayurvedic* text, *Charaka Samhita*, several *Vata* disorders are said to present with identical symptoms under *Vatavyadhi Chikitsa Adhyaya*. Heel joint pain is described as the most common symptom of *Plantar fasciitis*, *Vatakantaka*. *Acharya Sushruta* is another Ayurvedic sage who has elaborated on *Plantar fasciitis* as *Vatakantaka* in *Nidansthana Vatavyadhinidanadhyaya*, wherein

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he gives the causative factor of improper walking and uneven ground or over-solicitation as causing disturbance to *Vata dosha*. *Acharya Vagbhata* has also elaborated somewhat similarly. Altogether, these ancient scholars have enumerated pain in the heel as the main feature of the disease. The modern definition of the disease is nearly similar: Inflammation of the *Plantar fascia* with the formation of fibroblasts. This generally affects people between 40 and 60 years, and the risk is higher among females. *Ayurveda* uses the entire *Panchakarma* therapy for purifying, nourishing, and balancing the *doshas* of the body, but *Basti*, or medicated enema, is beneficial in *Vata disorders*. The *Matra Basti* is a form wherein medicated oils are administered, providing nourishment to the body without needing detoxification. These oils have alkali minerals, fats, and herbal decoctions to remove toxins and correct physiological balance. *Vagbhata* writes, "*Basti* treatment does not only act on the *Samana Vata*, but also *Apana Vata*; for it harmonises the fire of digestion, and, as it were, broadcasts its influence all over." *Matra Basti* aligns very well with what is required in modern life, as it is very non-invasive[1].

In *Ayurveda*, bone and joint conditions are broadly classified as *Vata-vyadhi*. If left untreated, it can seriously compromise daily function and quality of life. Therapies such as *Matra Basti* and *Agni Karma* (thermal cauterisation) restore balance to the *Vata dosha*, reduce inflammation, and relieve pain. These therapies can bring about meaningful amelioration of the symptomatology, thus valuable interventions in the *Ayurvedic* management of *Plantar fasciitis*, popularly known as *Vatakantaka*. They prove promising alternatives to conventional practices, as shown in Table 1.

Vatakantaka is known as *Plantar fasciitis*, a major *Vatavyadhi* according to *Ayurvedic* doctrine, which develops in a person due to *Vata dosha* imbalance. This is the first description of this condition by the founding father of *Ayurveda, Maharshi Sushruta*, who pointed out that walking on uneven surfaces and too much physical exertion are the significant causes of this disease. This is an illness, as defined by *Acharya Vagbhata*, clearly *Vata* in nature, being represented by signs and symptoms well described as a "thorn prickling in the heel area", or Karnataka, which is a perfect description of the sharp pain that occurs in the heel region of *Plantar fasciitis*. Recently, *Plantar fasciitis*, or *Vatakantaka*, has been commonly seen in most patients. This can be attributed to lifestyle habits like wearing ill-designed or uncomfortable footwear that was chosen based on fashion rather than function. These contribute to the aggravation of *Vata dosha*, thus increasing the pain in the heel[2].

Acharya Sushruta also described specific *Ayurvedic* parasurgical treatments for *Plantar fasciitis* or *Vatakantaka*. He supported *Agnikarma* (a controlled thermal cauterisation technique) as it could give long-term relief from pain. He also prescribed other treatments, such as *Eranda Taila Pana* (oral consumption of castor oil) and *Raktavasechana* (bloodletting), to ease symptoms. According to *Sushruta, Agnikarma* is one of the best treatments for *Vatakantaka* as it offers permanent relief by removing the source of pain, which aligns with the holistic *Ayurveda* concept[3].

Literature on the application of *Agnikarma* and *Matra Basti* in treating *Plantar fasciitis* (*Vatakantaka*) cites their efficacy in alleviating pain and inflammation. *Agnikarma*, a thermal treatment, has yielded long-term pain relief, with reductions in pain following multiple treatments demonstrated by Misar *et al.*[4]. Girgune *et al.*[5] surveyed *Matra Basti's* physiological effect and concluded that systemic absorption and therapeutic effect balanced *Vata dosha* effectively, thereby eliminating *Vatakantaka* symptoms. Current studies, like Krishnadev and

Table 1. Key topics in Ayurvedic management of *Plantar fasciitis* (*Vatakantaka*)

Author(s)	Study Summary
Vasudev and Deshpande[1]	A comparative clinical study on *Matra Basti* with different oils highlighting its effectiveness in pacifying *Vata dosha* and reducing pain. Focus on conditions like *Sciatica* and joint pain.
Shekokar and Borkar[2]	Research on *Agni Karma* for chronic *Plantar fasciitis*, emphasising localised anti-inflammatory and analgesic effects with reduced pain recurrence in *Vatakantaka*.
Girgune[3]	A review of *Matra Basti*'s physiological effects, explaining its absorption through the rectal route and its systemic impact on *Vata dosha*, is helpful in conditions like *Plantar fasciitis*.

Legend: Summary of key studies on *Ayurvedic* treatments for *Plantar fasciitis* (*Vatakantaka*) and their effects.

Stephen[6], offer case studies in which *Agnikarma* eliminated pain after a few sessions, demonstrating the therapy's potential for wider clinical use. Ramani *et al.*[7] documented *Agnikarma's* efficacy in treating chronic *Plantar fasciitis*, especially where conventional treatment has few long-term benefits. Sharma and Prakash[8] documented the efficacy of *Basti* therapies, like *Matra Basti*, in treating *Vata* disorders and inflammation and, in so doing, provided promising evidence for conditions like *Vatakantaka*, as shown in Table 2.

2. Materials and Methods

This review synthesises available literature on Ayurvedic therapies, focusing mainly on the efficacy of *Agnikarma* and *Matra Basti* in managing *Vatakantaka* or *Plantar fasciitis*. A literature search was conducted in relevant databases, including PubMed, Google Scholar, and *Ayurvedic* journals. Studies to be considered were those studying the analgesic and anti-inflammatory activities of *Agnikarma* while considering the systemic benefits of *Matra Basti* in minimising *Vata dosha*.

2.1 Literature Selection Criteria

Studies were chosen based on their origin from peer review and published within the last 15 years. Then, these studies were chosen based on clinically relevant case studies and literature reviews that assessed pain relief, functional mobility, and quality of life between patients with either *Agnikarma* or *Matra Basti*.

2.2 Data Extraction/Synthesis

Data were systematically extracted and categorised based on outcome measures, patient demographics, and intervention protocols. Comparative analyses were conducted to highlight consistent findings, mechanisms of action, and any observed limitations of each intervention.

2.3 Methodology

This review includes data from primary and secondary sources that have studied the therapeutic application of *Agnikarma* and *Matra Basti* in treating *Plantar fasciitis*, or *Vatakantaka*. A Narrative search was performed on *Ayurvedic* and integrative medicine journals. The studies considered reported the treatments' efficacy, mechanisms of action, and clinical outcomes. Studies that measured the outcome regarding pain intensity, functional capacity, and quality of life were included. Where applicable, the review elaborates on procedures for *Agnikarma* and *Matra Basti*. References to classical *Ayurvedic* texts contextualise findings in the tradition where appropriate[9].

Table 2. Literature review on *Agnikarma* and *Matra Basti* in the management of *Plantar fasciitis* (*Vatakantaka*)

S. No.	Year	Study Title	Summary	References
1	2017	*Agnikarma* in the Management of Vatakantaka (*Plantar fasciitis*)	This study evaluates *Agnikarma* therapy's effectiveness in providing long-term relief for patients with *Plantar fasciitis*. Results show significant pain reduction following a series of thermal treatments using *Agnikarma* [Journal of Integrative Medicine]	4
2	2020	A Review of *Matra Basti*'s Physiological Action	Investigates the systemic absorption and therapeutic impacts of *Matra Basti* in balancing *Vata dosha* and relieving symptoms associated with *Vatakantaka*. Demonstrates its effectiveness in nourishing tissues and enhancing systemic relief from pain [International Journal of *Ayurvedic* Medicine]	5
3	2023	Efficacy of *Agnikarma* in *Vatakantaka* w.s.r *Plantar fasciitis*	A case study on the successful application of *Agnikarma* for *Plantar fasciitis*, with three sessions leading to pain elimination in the patient. Emphasises the need for further research on broader samples [Journal of *Ayurveda* and Holistic Medicine]	6
4	2022	Role of *Agnikarma* in the Management of *Plantar fasciitis*	Describes *Agnikarma* for treating chronic *Plantar fasciitis*, noting its capacity to alleviate symptoms where conventional therapies show limited long-term effects. Highlights the therapy's non-recurrence advantage [Journal of Ayurveda and Integrated Medical Sciences]	7
5	2021	A Comparative Study of *Basti Therapy* in Musculoskeletal Pain	Evaluate the role of *Basti* (including *Matra Basti*) in addressing *Vata* disorders related to joint pain and inflammation, offering insights into its efficacy for conditions like *Vatakantaka* [International Journal of Research in Ayurveda]	8

Legend: Summary of critical studies on *Agnikarma* and *Matra Basti* for managing *Plantar fasciitis* (*Vatakantaka*).

3. Result

3.1 Mode of Action of *Matra Basti*

Matra Basti, a conventional *Ayurvedic* treatment, has been used to treat many illnesses for thousands of years. According to *Acharya Charaka*, *Basti Karma* is the primary cure for *Vata Dosha*. This therapy involves the administration of herbal medications in a specific manner, leveraging the body's natural healing processes. The mode of action of *Matra Basti* involves multiple mechanisms, which work synergistically to produce therapeutic effects.

Matra Basti enhances the bioavailability of herbal medications by facilitating their absorption through the rectal mucosa. This bypasses the digestive system, reducing first-pass metabolism and increasing the active principles absorbed into the bloodstream[10,11].

According to *Acharya Charaka, "Basti Vataharanam,"* or *Basti Karma*, is the primary remedy for *Vata Dosha. Vayu* affects *Trividha Rogamarga*, as mentioned above. Similar to how a plant's roots cause its stem, branches, sprouts, fruits, leaves, and other components to subside, the subsiding of *vata* likewise eases *Vikara* in other body sections.

The principal *Vata Dosha* site is *Pakvashya*. *Basti*, therefore, gains control over *Vata* throughout the body by acting on the principal site. Triglycerides, fatty acids, and phospholipids comprise most of the *Sneha* medication used in *Matra Basti*[12].

Colonic bacteria that produce butyric, propionic, and valeric acids can react with the long-chain fatty acids found in *basti* to produce short-chain fatty acids. Propionate, the primary energy source for colonocytes, is absorbed by the liver from butyrate, whereas acetate is processed by peripheral tissue as it travels through the peripheral circulation. The quick absorption of short-chain fatty acids aids in the absorption of water, and colic NaCl reduces the pH of the colon, shielding the mucosal barrier from irritation, increased mineral content, and irritating adherence[13,14].

Pakvashya District is home to *Purishadhara Kala*. *Asthidhara Kala* and *Purishadhara Kala* are the same, claims critic *Dalhana*. Given that *Basti* acts instantly on *Purishadharakala*, it would also act quickly on *Asthidharakala*. As per *Acharya Sushruta*, *Majja Dhatu* is fed by the ninth *basti,* whereas the eighth feeds Asthi Dhatu.

Thus, *Basti* presents us with the *Snehana* of *Asthi Dhatu* and *Vata Dosha Shamana*. According to *Acharya Charaka*, "Man grows strong using *Sneha Basti*, just as a tree fed with water at its roots puts forth tender leaves and delicate sprouts and, in due course, grows into a big tree full of blossom and fruit." This is how *Matra Basti* does business[15,16].

3.2 Mode of Action of *Agnikarma*

"*Agnikarma*" is the Sanskrit term for "fire procedure." Almost all centuries-old Ayurvedic preventative, therapeutic, and *hemostatic* properties have references to *agnikarma*. Advanced technologies like diathermy, radiation treatment, laser therapy, cauterisation, and Starion devices use similar principles. Because *doshas* are antagonistic, this is the most critical para-surgical technique utilised in clinical practice to treat chronic illnesses, particularly *kapha*-induced disorders that are hard to heal[17].

Agnikarma treats disorders affecting the skin, muscles, veins, ligaments, bones, joints, tendinopathies, neurogenic pain, and conditions where pain is the sole symptom. Additionally, haemorrhoids, sinuses, tumours, hypergranulated neurogenic ulcers, and anomalous fistulas are recommended for treatment. *Agnikarma* also has the benefit of hemostasis. It should not be used to treat internal organ rupture, numerous wounds, or internal bleeding (Figure 1).

3.2.1 Tissue Repair and Regeneration

The heat applied during *Agni Karma* promotes tissue repair and regeneration by stimulating growth factors and collagen production. This supports the body's natural healing processes, repairing damaged tissues[18]. **Reduced Inflammation**: *Agni Karma* reduces inflammation, promoting a healthy inflammatory response. This reduces the risk of chronic diseases, maintaining optimal health. **Improved Mental Clarity and Focus**: The therapy improves mental clarity and focus by stimulating the nervous system. This enhances cognitive function, promoting mental well-being. **Conclusion**: *Agni Karma's* mode of action involves multiple mechanisms that work together to produce therapeutic effects. By increasing blood flow, promoting relaxation and pain relief, stimulating detoxification, enhancing immune function, promoting tissue repair and regeneration, reducing inflammation, and improving mental clarity and focus,

Agni Karma provides a comprehensive approach to health and wellness[19,20].

4. Disease Review

According to *Ayurveda,* with modern science in relation.

4.1 Disease Review: *Plantar fasciitis* (*Vatakantaka*)

Plantar fasciitis (*Vatakantaka*) is associated by modern science with *Plantar fasciitis*, a disorder marked by inflammation of the fibrous aponeurosis that joins the toes to the calcaneus[21,22].

Ayurvedic treatment measures for *Plantar fasciitis* (*Vatakantaka*) include *Agnikarma*, a therapy that uses heat to alleviate pain and inflammation. However, these treatments have limited effectiveness, and there is a need for a safe, economical, and effective treatment for *Plantar fasciitis* (*Vatakantaka*)[23,24].

4.2 Procedure for *Matra Basti*

4.2.1 Preparation (Poorva Karma)

The patient is advised to follow a specific diet and lifestyle regimen tailored to their needs to prepare their body for the therapy.



Figure 1. Materials of *Agnikarma*.

4.2.2 Oleation (Snehan)

The afflicted area is massaged gently with oil to promote circulation, ease muscular tension, and boost the body's ability to absorb the herbal remedy.

4.2.3 Sudation or Swedana

Warm compresses are applied to loosen toxins, relax the muscles, and prepare the body for the *basti* procedure.

4.2.4 Basti Procedure (Basti Karma)

The herbal medicine is administered in a specific dose, tailored to the individual's needs, to nourish and balance the body.

4.2.5 Post-Procedure (Paschat Karma)

The patient is advised to rest and relax, with monitoring, to allow the body to absorb the benefits of the therapy. The *matra* of *Matra Basti* is shown in Table 3[25].

4.3 Indication of *Matrabasti*

Charaka-Matrabasti is always appropriate for those with *Vatavyadhi* and those who have become disabled by heavy lifting, prolonged physical activity, driving, or engaging in women. *Vruddha Vagbhata*: *Matrabasti* is administered regularly. Like *Madhutailika basti*, *Matrabasti* is suitable for year-round usage[26].

4.4 Contraindications of *Matrabasti*

Bruhatrayee and *Laghutraye*, the two classics, do not specify any significant restrictions. However, *Ashtanga sangrahakara* suggests against administering *Matrabasti* to anyone experiencing *ajeerna* (indigestion) or who falls asleep throughout the day after consuming it[27].

Table 3. Matra of *Matra Basti*

Scholar(s)	Quantity of *Matra Basti*	Approximate Measurement
Charaka and Vaagbhata	*Hrasva matra* (minimum quantity)	1/4 to 1/2 teaspoon
Sushruta, Chakrapani, and Dalhana	One and a half *pala*	3/4 to 1 ounce
Sharangadhara and Bhavprakasha	One *pala*	1/2 to 1 ounce
	Two *pala*	1 to 2 ounces
Kashyapa	*Kaneeyasi*: 1 *Prakuncha*	1/4 to 1/2 teaspoon
	Madhyama: 1 1/2 *Prakuncha*	3/8 to 3/4 teaspoon
	Uttama: 2 Pala	1 to 2 ounces

Legend: Summary of *Matra Basti* quantities and their corresponding measurements per classical Ayurvedic scholars.

4.5 The Procedure of *Agni Karma*

(1) Preparation: The area is cleaned and prepared. (2) Application: A heated instrument with careful temperature control is applied to a specific point. (3) Duration: The application time is precisely controlled and tailored to the individual's needs. (4) Post-Procedure: The area is cooled and soothed with gentle massage and herbal remedies.

Agnikarma, sometimes called cautery, is a well-liked and widely applied *Ayurvedic* pain management technique. In classical medicine, it is advised as a pain reliever. *Agnikarma* is adjusted to treat intense tendons, ligaments, muscles, and joint pain. The most sensitive part of the body's location determines the *Agnikarma* site. A cotton swab drenched with spirit is put close to the covered area and left there until the patient experiences as much burning as he can handle. The point is then covered with an *Arkapatra*[28].

The patient's sensitivity should be regarded as typical. The patient's skin has been left on it for a while. Steer clear of direct flame contact with any area of the body, including the skin surrounding it. Thus, using a modified *Agnikarma* strategy may circumvent the shortcomings of the classic *Agnikarma* method without sacrificing its ability to alleviate pain. *Agnikarma Chikitsa* is said by *Sushruta* to heal ailments deemed incurable by *Shastrakarma*, *Ksharakarma*, or *Bhaishajyakarma*, having the lowest recurrence rates following therapy. As a result, it is easy to use, affordable, efficient, and patient-safe[29].

Since ancient times, there have been several successful therapies for this illness. All texts relate to *Vihara* while explaining the broad *aetiology* of *Vataprakopa Ahara*. However, Charaka further details the etiological elements that lead to various forms of ligament, joint, and lumber disease, such as mechanical stress and poor posture. Both *Sushruta* and *Charaka* discuss *Agnikarma*, or the treatment of *Vata Vyadhi*. *Agnikarma* is a well-known and widely used *Ayurvedic* method of healing pain[30].

4.6 Instruments

Instead of hot *Shalaka* (Figure 2), flaming cotton swabs holed by artery forceps and *Arkapatra* are used for *Agnikarma* in this method. The point of *Agnikarma* is to find the most tender location on the body's surface. The point is covered with an *Arkapatra*. Then, a flaming cotton swab soaked in spirits was brought close to the cover point and kept on it till the patient felt a burning sensation on that point up to his maximum tolerance. Care should be taken about the patient's sensitivity, which should be expected. It is not kept for so long that the patient's skin gets burned. The flame should not come in direct contact with the surrounding skin or another body part (Figures 3 and 4)[31].



Figure 2. Red hot *Shalaka*.



Figure 3. *Agnikarma Bindhu Dhagdhavishesha* procedure.



Figure 4. After *Agnikarma*.

5. Discussion

The *Ayurvedic* treatments of *Matra Basti* and *Agni Karma*, used in the case of *Vatakantaka* or *Plantar fasciitis*, exemplify the classical method employed to treat pain and the healing process. As far as *Ayurveda* is concerned, *Vatakantaka* is an inflammation of the plantar fascia coupled with severe pain that often stems

from the exacerbation of the *Vata dosha*. Traditional *Ayurvedic* treatments are more holistic, whereas conventional treatments usually involve symptomatic relief for pathophysiology. The present review considers two promising traditional therapies - *Matra Basti*, a mild medicated enema with herbal oils, and *Agni Karma*, a controlled thermal cauterisation technique that offers long-term relief in cases of *Plantar fasciitis*[32].

Matra Basti can pacify *Vata dosha*; it is given mainly for chronic pain with rich tissue nutrition to allow the systemic absorption of oil that is given medicinally. More particularly, as in Girgune[5], *Matra Basti* will likely favour both local and systemic diseases by bypassing digestion for increased bioavailability of the active drug. This approach reduces inflammation and addresses *Vata* imbalances systemically, with reported improvements in pain and overall quality of life for patients with *Plantar fasciitis*. Compared to conventional nonsteroidal anti-inflammatory drugs that can have adverse effects with prolonged use, *Matra Basti* offers a natural and sustained approach to managing inflammation without the risks of dependency or gastrointestinal issues[33].

Agni Karma is an *Ayurvedic* para-surgical intervention in the limelight due to its localised anti-inflammatory and analgesic effects. Studies by Shekokar and Borkar[2] show that controlled thermal cauterisation enhances blood circulation, reduces inflammation, and stimulates collagen production, which is helpful for tissue repair in *Plantar fasciitis*. Applying localised heat will cause mild provocation of an inflammatory reaction from *Agni Karma*, which will speed up healing processes while simultaneously making the plantar fascia more flexible and able to resist recurrence. This direct approach presents an alternative or supplement for patients who fail conservative measures to bring about lasting results. Moreover, it would fall within the *Ayurvedic* model of management, where the promotion of body-based healing phenomena rather than an attempt at merely controlling manifestations is put forward[34].

Undoubtedly, some of the most significant advantages of *Ayurveda* interventions involve a holistic approach beyond symptom relief into ways of life and diets associated with various imbalances that may develop. *Plantar fasciitis* is probably caused by repetitive strain and poor mechanics of the foot, which can even exacerbate imbalances of *Vata*, most especially at some lifestyle elements, which include simply standing for long periods, improper footwear, and sedentary habits. The key to *Ayurvedic* thinking is lifestyle alteration combined with therapies such as *Matra Basti* and *Agni Karma*, which can improve immediate relief and support long-term prevention. Integrative care models will be of much utility in this regard; *Ayurvedic* interventions thereby complement conventional treatments such as physical therapy, orthotics, or stretching routines- a way to round out recovery and prevention[35].

In addition to local inflammation and pain-related benefits, *Ayurveda* treatment can have secondary systemic ones that enhance patient wellness per se. For example, *Matra Basti's* beneficial effects on gut health and systemic balancing of *Vata* are much more allied with better moods, energy levels, and stress management, all of which have a good outcome for chronic pain. As a recent study by Sharma *et al.,*[8] concluded, the integration of *Ayurvedic* medicine in the mainstream practice of managing pain will aid the patient from becoming dependent on pharmaceutical intervention, and this will ensure minimal risk with long-term side effects, resulting in improvement of the quality of life of patients. This holistic benefit again supports the more significant role of *Ayurveda* interventions in promoting wellness and not just controlling the symptoms.

Promising these results would still not require the safety and effectiveness of *Ayurvedic* treatments. Most studies were undertaken on small sample sizes using treatment protocols that were standardised to some extent, and objective outcome measures were used that showed the necessity for good-quality clinical trials. Though *Ayurvedic* interventions have been familiar with traditional medicine for some years, their acceptance within the modern practice will have to be supported by even further evidence to ensure a more accessible entry into broad-scale application. A formal, standardised protocol for these two interventions, *Matra Basti* and *Agni Karma*, in a clinical setup, would improve reproducibility, allowing more extensive studies and, therefore, the assessment of such treatments in *Plantar fasciitis*[36].

Although this review indicates the efficacy of *Ayurvedic* treatments like *Matra Basti* and *Agni Karma* in treating *Plantar fasciitis*, a comparison with the

standard treatments is also needed. Standard treatments like *NSAIDs*, physical therapy, corticosteroid injections, and orthotics are the usual treatments for pain and inflammation relief. The treatments primarily focus on symptomatic relief, *NSAIDs* reduce inflammation, and physical therapy improves foot mechanics[37]. On the other hand, Ayurvedic therapies like *Matra Basti* and *Agni Karma* address the aetiology by balancing *Vata dosha*, which can result in long-term relief. These therapies address overall healing by rectifying systemic balance, as opposed to conventional treatment, which addresses suppression of symptoms. Although *Ayurvedic* treatment is overall viewed as safer with fewer side effects, particularly in comparison with corticosteroid injections, more studies are needed to evaluate its long-term effectiveness and safety compared to conventional treatment. Subsequently, whereas *Ayurvedic* remedies hold a promising future by addressing the root cause of *plantar fasciitis*, additional research will be required to demonstrate their safety and efficacy over the conventional methods[38].

In summary, *Ayurvedic* interventions such as *Matra Basti* and *Agni Karma* are feasible, integrative treatments for plantar fasciitis, particularly for patients interested in more holistic, non-invasive management options. Their capacity to address local and systemic symptoms positions them well within integrative care models focused on patient-centred, sustainable management strategies. Future research should continue to investigate these therapies' mechanisms and clinical outcomes to help clarify their place in contemporary health care[39].

6. Conclusion

This shows the possibility of *Ayurvedic* therapies such as *Matra Basti* and *Agni Karma* being adjunct therapies for treating plantar fasciitis. Because both deal with the aetiology of pain and inflammation in consonance with *Ayurveda*, these methods are very effective while minimising side effects. *Matra Basti* works systemically with *Vata dosha* and *Agni Karma* to offer a systemic approach to pain relief and healing at the tissue level. These interventions are excellent alternatives to the conventional ways of treatment because they promote holistic care. Most patients usually prefer integrative approaches. While promising in their current form, more research is needed to establish standardised protocols for these therapies and ensure the safety and efficacy profile of these treatments. Controlled clinical trials involving larger sample sizes with objective outcome measures will better clarify their role in *Plantar fasciitis* treatment. As integrative medicine grows, *Ayurvedic* interventions such as *Matra Basti* and *Agni Karma* may be increasingly used to manage chronic musculoskeletal pain.

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8. Author Contribution

Raza Sheikh organised the review outline, conducted a literature search, prepared the initial manuscript, and conceptualised the study. Dr. Shamli Hiware reviewed the Ayurvedic literature, helped with the clinical description of *Matra Basti* and *Agni Karma*, and reviewed manuscript revisions. Amol Chafale shared knowledge on Agni Karma, helped interpret its physiological action, and reviewed and edited the manuscript. All authors have read and agreed to the published version of the manuscript.

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