

Comparative Review of Erandadi Kwatha and Simhasyadi Kwatha in the Management of Gridhrasi with Special Reference to Sciatica

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Abstract: *Gridhrasi, one of the Vata Nanatmaja Vyadhi described in Ayurveda, is characterized by radiating pain extending from the Sphik (gluteal region) to the Kati, Uru, Janu, Jangha, and Pada, closely resembling the clinical features of sciatica. Sciatica is a common neuromuscular disorder resulting from compression or irritation of the lumbosacral nerve roots and is associated with pain, functional disability, and reduced quality of life. Although conventional management provides symptomatic relief, recurrence and treatment-related adverse effects remain important challenges. Ayurveda describes several formulations for the management of Gridhrasi, among which Erandadi Kwatha and Simhasyadi Kwatha are widely used because of their Vata-Kaphahara, Vedanasthapana, Shothahara, Deepana, Pachana, and Srotoshodhana properties. The present review critically evaluates the classical therapeutic rationale, pharmacological properties, probable mechanisms of action, and available scientific evidence concerning these two formulations. Relevant information was collected from classical Ayurvedic texts, including Charaka Samhita, Sushruta Samhita, Ashtanga Hridaya, Bhavaprakasha, Madhava Nidana, Chakradatta, Yogaratnakara, and Bhaishajya Ratnavali, along with published literature retrieved from PubMed, Scopus, Google Scholar, DHARA, and the AYUSH Research Portal. The reviewed evidence indicates that both formulations possess anti-inflammatory, analgesic, antioxidant, neuroprotective, and immunomodulatory activities that may reduce pain, improve functional mobility, and restore neuromuscular function. Erandadi Kwatha appears to be more beneficial in Vataja Gridhrasi with predominant degenerative changes, whereas Simhasyadi Kwatha may be more suitable for Vata-Kaphaja Gridhrasi associated with Ama and inflammatory manifestations. However, the available evidence is limited, and further well-designed clinical trials and pharmacological studies are required to establish their comparative efficacy and mechanisms of action..*

Keywords: Gridhrasi, Sciatica, Erandadi Kwatha, Simhasyadi Kwatha, Vata Vyadhi, Ayurveda, Narrative Review

I. INTRODUCTION

Gridhrasi is a well-recognized **Vata Nanatmaja Vyadhi** described in the Ayurvedic classics. The condition is characterized by severe radiating pain originating in the Sphik (gluteal region) and extending sequentially through the Kati (lumbar region), Uru (thigh), Janu (knee), Jangha (calf), and Pada (foot), often accompanied by stiffness (*Stambha*), twitching (*Spandana*), and difficulty in walking. Owing to the characteristic gait resembling that of a vulture (*Gridhra*), the disease is termed *Gridhrasi*.¹

Sciatica, the closest modern correlate of Gridhrasi, is a neuropathic pain syndrome caused by irritation or compression of the lumbosacral nerve roots, most commonly due to lumbar intervertebral disc herniation, spinal canal stenosis,



degenerative spondylosis, or piriformis syndrome.² It affects approximately 10–40% of individuals during their lifetime and is among the leading causes of disability, work absenteeism, and reduced quality of life worldwide.³

Current management of sciatica primarily involves non-steroidal anti-inflammatory drugs (NSAIDs), muscle relaxants, corticosteroid injections, physiotherapy, and, in selected cases, surgical decompression. Despite these interventions, recurrence, incomplete pain relief, medication-related adverse effects, and persistent functional disability remain significant clinical challenges.^{4,5} Consequently, increasing attention has been directed toward complementary and integrative therapeutic approaches, including Ayurveda.

Ayurveda attributes the pathogenesis of Gridhrasi predominantly to the vitiation of **Vata Dosha**, either independently (*Vataja Gridhrasi*) or in association with **Kapha Dosha** (*Vata-Kaphaja Gridhrasi*). Vitiating Vata affects the Kandara, Snayu, Asthi, Sandhi, and associated Srotas, producing pain, restricted movement, stiffness, and neurological manifestations. The involvement of Kapha contributes to heaviness (*Gaurava*), anorexia (*Aruchi*), lethargy (*Tandra*), and impaired mobility.^{1,6}

Among the numerous Ayurvedic formulations indicated for Vata disorders, **Erandadi Kwatha** and **Simhasyadi Kwatha** have been widely prescribed in clinical practice for Gridhrasi. Erandadi Kwatha is traditionally indicated for disorders associated with aggravated Vata and Kapha, particularly those involving pain, stiffness, and obstruction of bodily channels. Simhasyadi Kwatha is similarly recommended in classical texts for Gridhrasi and related Vata disorders and is believed to possess potent anti-inflammatory, analgesic, and Srotoshodhaka properties.^{7,8}

Several experimental studies have demonstrated that many constituent herbs present in these formulations possess anti-inflammatory, antioxidant, analgesic, immunomodulatory, and neuroprotective activities. However, comprehensive comparative reviews integrating classical Ayurvedic concepts with contemporary biomedical evidence remain limited.^{9–12}

Therefore, the present review aims to critically compare Erandadi Kwatha and Simhasyadi Kwatha with respect to their classical descriptions, pharmacodynamic properties, probable mechanisms of action, and available scientific evidence in the management of Gridhrasi with special reference to sciatica.

II. REVIEW OF LITERATURE

Gridhrasi has been described in the **Charaka Samhita** under the context of **Vata Vyadhi**, where its characteristic symptom complex includes radiating pain extending from the hip to the foot, accompanied by stiffness, twitching, and difficulty in locomotion.¹ The **Sushruta Samhita** and **Ashtanga Hridaya** also classify Gridhrasi among important neurological manifestations of aggravated Vata and recommend therapies aimed at restoring normal Vata function through Shamana and Shodhana approaches.^{6,13}

Classical therapeutic texts, including **Chakradatta**, **Yogaratanakara**, and **Bhaishajya Ratnavali**, describe several herbal formulations for Gridhrasi, among which **Erandadi Kwatha** and **Simhasyadi Kwatha** are frequently recommended owing to their Vata-Kapha pacifying, Deepana, Pachana, Vedanasthapana, and Shothahara properties.^{7,8,14}

Modern pharmacological investigations have demonstrated that several ingredients of these formulations exhibit anti-inflammatory, analgesic, antioxidant, and neuroprotective effects through modulation of inflammatory mediators, oxidative stress pathways, and nociceptive signaling. Preliminary clinical studies also suggest beneficial effects in reducing pain intensity, improving straight leg raise angle, enhancing functional mobility, and decreasing disability scores among patients with sciatica. Nevertheless, most published studies are limited by small sample sizes, methodological heterogeneity, and inadequate standardization, highlighting the need for a comprehensive evidence synthesis.^{9–12}

Disease Overview

Definition- Gridhrasi is a distinct Vata Nanatmaja Vyadhi characterized by radiating pain originating from the Sphik (gluteal region) and extending to the Kati (lumbar region), Uru (thigh), Janu (knee), Jangha (calf), and Pada (foot).



Classical features include **Ruk (pain), Toda (pricking pain), Stambha (stiffness), Muhuspandana (intermittent twitching), and Sakthikshepa Nigraha (difficulty in raising the affected limb).**^{1, 6}

Sciatica is defined as pain radiating along the distribution of the sciatic nerve due to irritation or compression of the L4, L5, or S1 nerve roots, usually secondary to lumbar spinal pathology.^{13, 15}

Epidemiology

Sciatica is one of the most common causes of radicular leg pain and disability. Its lifetime prevalence ranges from 10% to 40%, predominantly affecting individuals between 30 and 60 years of age.^{13, 17} Lumbar disc herniation accounts for nearly 85–90% of cases, while spinal stenosis, degenerative spondylosis, spondylolisthesis, piriformis syndrome, trauma, and inflammatory disorders constitute other important causes.^{14, 16} The increasing prevalence of sedentary lifestyles, obesity, and occupational stress has substantially increased the global burden of sciatica.^{23, 24}

Etiology

Modern Perspective

Sciatica results from mechanical compression or chemical irritation of the lumbosacral nerve roots. Common etiological factors include lumbar disc prolapse, spinal stenosis, degenerative disc disease, facet arthropathy, spondylolisthesis, piriformis syndrome, trauma, tumors, and inflammatory disorders.^{14, 16} Nerve root compression induces local inflammation with increased production of TNF- α , IL-1 β , prostaglandins, nitric oxide, and matrix metalloproteinases, leading to neuropathic pain and neurological dysfunction.^{18, 19}

Ayurvedic Perspective

According to Ayurveda, Gridhrasi develops due to Vata Prakopa, either as Vataja Gridhrasi or Vata-Kaphaja Gridhrasi. Excessive physical exertion, trauma, prolonged standing, fasting, suppression of natural urges, intake of dry foods, and ageing aggravate Vata, whereas Kapha association produces Gaurava (heaviness), Aruchi (anorexia), and Tandra (drowsiness).^{1, 3}

Risk Factors

Major risk factors include increasing age, obesity, sedentary lifestyle, prolonged sitting, repetitive lifting, occupational vibration, smoking, diabetes mellitus, degenerative spinal diseases, and previous lumbar injury.^{13, 20} Many of these factors resemble the Vata- and Kapha-aggravating Nidana described in Ayurvedic classics.^{1, 6}

Clinical Features

Classical features of Gridhrasi include Ruk, Toda, Stambha, Muhuspandana, Sakthikshepa Nigraha, and radiating pain extending from the hip to the foot. In Vata-Kaphaja Gridhrasi, symptoms such as Gaurava, Aruchi, and Tandra are additionally observed.^{1, 6}

Patients with sciatica typically present with unilateral radiating leg pain, low back pain, tingling, numbness, muscle weakness, positive Straight Leg Raise (SLR) test, diminished tendon reflexes, and sensory deficits corresponding to the affected nerve root.^{15, 21}

Diagnosis

Diagnosis of sciatica is primarily clinical and supported by neurological examination, Straight Leg Raise (SLR) test, Crossed SLR, Slump test, MRI, CT, and electromyography (EMG) when indicated.^{15, 22}

In Ayurveda, diagnosis is based on Nidana Panchaka, including Nidana, Purvarupa, Rupa, Upashaya-Anupashaya, and Samprapti, with emphasis on characteristic clinical manifestations.¹

Complications

Untreated sciatica may result in chronic neuropathic pain, persistent disability, muscle wasting, sensory deficits, foot drop, impaired quality of life, and, rarely, cauda equina syndrome requiring emergency intervention.^{15, 23} Chronic Vata Prakopa may further lead to Dhatu Kshaya, weakness, and progressive locomotor impairment.⁶

Current Management

Conventional management includes patient education, activity modification, physiotherapy, therapeutic exercises, NSAIDs, muscle relaxants, neuropathic pain medications, epidural steroid injections, and surgical decompression in



selected cases.^{24,25} Although effective for symptomatic relief, recurrence and drug-related adverse effects remain important limitations.²⁴

Ayurvedic management focuses on correcting the underlying Dosha imbalance through Nidana Parivarjana, Deepana, Pachana, Snehana, Swedana, Virechana, Basti, and internal administration of Erandadi Kwatha and Simhasyadi Kwatha, along with appropriate dietary and lifestyle modifications.^{1,6,7} These interventions aim to restore Vata balance, reduce inflammation, alleviate pain, and improve functional mobility.

Ayurvedic Perspective of Gridhrasi

Gridhrasi is an important Vata Nanatmaja Vyadhi described in the Ayurvedic classics and is classified under Madhyama Roga Marga due to the involvement of deeper musculoskeletal and neuromuscular tissues. It is primarily caused by the vitiation of Vata Dosha, either alone (Vataja Gridhrasi) or associated with Kapha Dosha (Vata-Kaphaja Gridhrasi).^{1,6} The Ayurvedic concept of Gridhrasi closely correlates with the clinical features and pathophysiology of sciatica.

Nidana

Specific etiological factors for Gridhrasi are not separately described; therefore, the Nidana of Vata Vyadhi are considered applicable. These include Ativyayama (excessive exertion), Abhighata (trauma), prolonged standing or walking, Vegadharana, fasting, intake of Ruksha, Laghu and Sheeta Ahara, and ageing, which aggravate Vata.^{1,26} In Vata-Kaphaja Gridhrasi, excessive intake of Guru, Snigdha Ahara, sedentary habits, and Divasvapna aggravate Kapha, leading to Margavarana (obstruction of Vata).²⁷

Dosha–Dushya

Vata is the principal Dosha involved, particularly Vyana Vata and Apana Vata, while Kapha contributes in Vata-Kaphaja Gridhrasi by producing Stambha, Gaurava, Aruchi, and Tandra. The major Dushyas include Mamsa, Meda, Asthi, Majja, Snayu, and Kandara, resulting in pain, stiffness, restricted movement, and neurological manifestations.^{1,6,28}

Agni, Ama and Srotas

Impaired Jatharagni leads to Ama formation, especially in Vata-Kaphaja Gridhrasi. Ama obstructs the Srotas, aggravates Vata, and produces inflammation, pain, and stiffness. The principal Srotas involved are Mamsavaha, Medovaha, Asthivaha, and Majjavaha Srotas, leading to nutritional deficiency of tissues and progressive neuromuscular dysfunction.^{29,30}

Samprapti

The pathogenesis can be summarized as:

Nidana Sevana → Vata-Kapha Prakopa → Mandagni → Ama formation → Srotorodha → Vata Vaigunya → Localization in Kati, Sphik, Snayu, Kandara, Asthi and Majja → Radiating pain, stiffness and restricted movement.^{1,26}

In Vataja Gridhrasi, Dhatu Kshaya predominates, whereas Vata-Kaphaja Gridhrasi is characterized by Margavarana due to Kapha and Ama, explaining both the degenerative and inflammatory aspects of sciatica.

Roga Marga and Prognosis

Gridhrasi is a Madhyama Roga Marga disorder involving Asthi, Sandhi, Snayu, Kandara, and Majja, making it relatively difficult to treat in chronic stages.¹ Early diagnosis and timely Shamana and Shodhana therapies generally yield a favourable prognosis, whereas chronic cases with marked degeneration and neurological deficits require prolonged management.^{6,27}

Comparative Review of Erandadi Kwatha and Simhasyadi Kwatha

Erandadi Kwatha and Simhasyadi Kwatha are classical Ayurvedic formulations widely indicated in the management of Gridhrasi, particularly Vata-Kaphaja Gridhrasi. Both formulations possess Vata-Kaphahara, Vedanasthapana, Shothahara, Deepana, Pachana, and Srotoshodhana properties, thereby relieving pain, stiffness, inflammation, and improving locomotor function.^{1,5,7} Although both aim to restore the normal function of Vata, they differ in their composition and therapeutic emphasis.



Erandadi Kwatha

Erandadi Kwatha is a classical polyherbal decoction indicated in Vata Vyadhi, especially painful neuromuscular disorders. It possesses Deepana, Pachana, Shothahara, Vedanasthapana, Srotoshodhana, and Vatanulomana properties.^{1,7} The formulation is centered around Eranda (*Ricinus communis* Linn.), a well-known Vatahara drug having Madhura, Katu and Kashaya Rasa, Ushna Virya, Madhura Vipaka, and Snigdha-Tikshna Guna, which help relieve pain, stiffness, and improve mobility. Experimental studies have demonstrated anti-inflammatory, analgesic, antioxidant, and neuroprotective activities of *Ricinus communis*, supporting its traditional use in musculoskeletal disorders.^{9,28}

Simhasyadi Kwatha

Simhasyadi Kwatha is described in Bhavaprakasha for the management of Gridhrasi and other Vata disorders. The formulation contains Vasa (*Adhatoda vasica*), Danti (*Baliospermum montanum*), Aragvadha (*Cassia fistula*), with Eranda Taila as *Prakshepa Dravya*.⁵ It predominantly exhibits Tikta-Katu Rasa, Ushna Virya, Katu Vipaka, and possesses Vata-Kaphahara, Deepana, Pachana, Shothahara, and Vedanasthapana actions. The formulation digests Ama, removes Srotorodha, and restores the normal movement of aggravated Vata. Experimental studies suggest that its ingredients possess anti-inflammatory, antioxidant, analgesic, and immunomodulatory properties, which contribute to symptom relief in Gridhrasi.^{9,10}

Table 1. Comparative Pharmacodynamic Profile

Parameter	Erandadi Kwatha	Simhasyadi Kwatha
Primary indication	Vata Vyadhi, Gridhrasi	Gridhrasi, Vata-Kaphaja disorders
Dosha action	Vata-Kapha Shamaka	Vata-Kapha Shamaka
Major actions	Vatanulomana, Vedanasthapana, Shothahara, Deepana, Pachana	Deepana, Pachana, Ama Pachana, Shothahara, Vedanasthapana
Therapeutic target	Degenerative and inflammatory Vata disorders	Inflammatory Vata-Kaphaja Gridhrasi
Pharmacological activities	Anti-inflammatory, analgesic, antioxidant, neuroprotective	Anti-inflammatory, analgesic, antioxidant, immunomodulatory
Special feature	Snigdha Vatahara action	Better Ama Pachana and Srotoshodhana

Comparative Therapeutic Actions

Although both formulations alleviate pain and improve mobility, their therapeutic emphasis differs. Erandadi Kwatha is more suitable in Vata-predominant degenerative conditions, where it promotes Vatanulomana, relieves stiffness, nourishes Asthi-Majja Dhatu, and improves neuromuscular function.^{1,7} In contrast, Simhasyadi Kwatha is particularly beneficial in Vata-Kaphaja Gridhrasi, where Ama, inflammation, and channel obstruction are predominant. Its Deepana-Pachana action helps digest Ama, reduce inflammation, and restore unobstructed Vata movement.⁵

Experimental and Clinical Evidence

Experimental studies have shown that several ingredients of both formulations exhibit anti-inflammatory, analgesic, antioxidant, and neuroprotective activities by reducing inflammatory mediators and oxidative stress.^{9–12} Clinical studies on Simhasyadi Kwatha with Eranda Taila have reported significant improvement in pain, tenderness, stiffness, Straight Leg Raise (SLR), and walking ability in patients with Gridhrasi.¹⁰ Evidence for Erandadi Kwatha is comparatively limited, although recent clinical research has highlighted its potential efficacy in relieving pain and improving functional outcomes.¹²

Critical Appraisal

Both formulations are based on the fundamental principles of Vata Shamana, Ama Pachana, and Srotoshodhana, making them rational therapeutic options for Gridhrasi. Erandadi Kwatha appears more appropriate in Vataja Gridhrasi associated with degeneration and dryness, whereas Simhasyadi Kwatha may provide greater benefit in Vata-Kaphaja



Gridhrasi characterized by inflammation, stiffness, heaviness, and Ama. However, the available evidence is largely based on small clinical studies with methodological limitations. Therefore, well-designed randomized controlled trials with standardized formulations and validated outcome measures are required to establish their comparative efficacy and safety.^{9, 10, 12}

Probable Mode of Action of Erandadi Kwatha and Simhasyadi Kwatha

The therapeutic efficacy of Erandadi Kwatha and Simhasyadi Kwatha in the management of Gridhrasi can be explained through both Ayurvedic principles and contemporary biomedical mechanisms. Although the formulations differ in composition, both are designed to restore the normal physiological functions of Vata Dosha, eliminate Ama, relieve Srotorodha (obstruction of channels), and nourish the affected musculoskeletal and nervous tissues. Their multidimensional pharmacological actions provide a scientific rationale for their clinical use in patients with Gridhrasi (sciatica).^{1, 6}

Ayurvedic Mechanism of Action

Vata Shamana

Gridhrasi is primarily a manifestation of aggravated Vata Dosha, particularly Vyana Vata and Apana Vata. The majority of ingredients in Erandadi Kwatha and Simhasyadi Kwatha possess Ushna Virya, Snigdha Guna, and Vata-Kaphahara properties, which pacify aggravated Vata and restore its normal directional movement (*Vatanulomana*).^{1, 7}

Normalization of Vata reduces:

- Radiating pain (Ruk)
- Pricking sensation (Toda)
- Stiffness (Stambha)
- Restricted movement (Sakthikshepa Nigraha)
- Muscle spasm and functional disability

Agni Deepana and Ama Pachana

In Vata-Kaphaja Gridhrasi, impaired digestive and metabolic activity (*Mandagni*) leads to the formation of Ama, which obstructs the Srotas and aggravates pain and inflammation. Both formulations contain herbs with Deepana and Pachana properties that improve Agni, digest Ama, and prevent further accumulation of toxic metabolites.^{26, 29}

Improvement of Agni results in:

- Better digestion and metabolism
- Reduced Ama formation
- Decreased inflammatory manifestations
- Improved tissue nutrition

Srotoshodhana

Obstruction of microchannels (Srotorodha) is a key pathological event in Vata-Kaphaja Gridhrasi. Herbs possessing Tikshna, Ushna, and Laghu qualities facilitate channel purification (Srotoshodhana), thereby restoring the normal circulation of Dosha, Dhatu, and nutrients.^{1, 27}

Relief of Srotorodha improves:

- Local circulation
- Nutrient delivery to affected tissues
- Elimination of inflammatory metabolites
- Functional recovery of nerves and muscles



Shothahara and Vedanasthapana

Both formulations contain drugs traditionally recognized for Shothahara (anti-inflammatory) and Vedanasthapana (analgesic) actions. Reduction of localized swelling relieves mechanical pressure on the affected structures, while analgesic properties decrease pain intensity and improve mobility.^{7, 14}

Brimhana and Dhatu Poshana

Chronic Gridhrasi is associated with Dhatu Kshaya, particularly involving Asthi, Majja, Mamsa, and Snayu. By correcting Agni and improving tissue metabolism, these formulations facilitate Dhatu Poshana (tissue nourishment), thereby supporting structural integrity and functional recovery of the musculoskeletal and nervous systems.^{1, 6}

Modern Pharmacological Mechanism

The therapeutic actions of Erandadi Kwatha and Simhasyadi Kwatha can also be explained through the pharmacological activities of their constituent herbs.

Anti-inflammatory Activity

Several herbal ingredients exhibit significant anti-inflammatory activity by suppressing inflammatory mediators including:

- Tumor necrosis factor-alpha (TNF- α)
- Interleukin-1 β (IL-1 β)
- Interleukin-6 (IL-6)
- Prostaglandins
- Cyclooxygenase (COX) enzymes
- Nitric oxide synthesis^{9, 18}

Reduction of these mediators decreases nerve root inflammation and perineural edema, thereby relieving radicular pain.

Analgesic Activity

Experimental studies have demonstrated analgesic effects through inhibition of peripheral nociceptor sensitization and modulation of central pain pathways. Reduction in inflammatory pain mediators contributes to improvement in pain intensity, tenderness, and functional disability.^{9, 28}

Antioxidant Activity

Oxidative stress plays an important role in nerve injury and chronic inflammation. Phytoconstituents such as flavonoids, phenolic compounds, tannins, and alkaloids present in several ingredients of both formulations scavenge reactive oxygen species, reduce lipid peroxidation, and protect neural tissues from oxidative damage.^{11, 12}

Neuroprotective Effect

Persistent compression of lumbar nerve roots results in neuronal inflammation and axonal injury. Bioactive constituents of several medicinal plants present in these formulations have demonstrated neuroprotective effects by reducing neuronal apoptosis, preserving axonal integrity, and improving neural regeneration in experimental studies.^{10, 12}

Immunomodulatory Activity

Chronic inflammation associated with sciatica involves activation of immune cells and increased production of pro-inflammatory cytokines. Experimental evidence suggests that several ingredients of these formulations modulate immune responses and reduce excessive inflammatory activity, thereby promoting tissue repair and resolution of inflammation.¹¹



Improvement of Microcirculation

Reduction of inflammation, edema, and vascular congestion improves local blood flow around compressed nerve roots. Enhanced microcirculation facilitates oxygen delivery, nutrient transport, and removal of metabolic waste products, thereby promoting recovery of affected neural tissues.¹⁹

Muscle Relaxant Activity

Muscle spasm frequently aggravates pain and restricts lumbar mobility in patients with sciatica. The anti-inflammatory and analgesic actions of these formulations indirectly reduce muscle spasm, improve flexibility, and enhance functional movement of the lumbosacral region.¹⁶

Comparative Mechanism of Action

Therapeutic Aspect	Erandadi Kwatha	Simhasyadi Kwatha
Primary Ayurvedic action	Vata Shamana and Vatanulomana	Vata-Kapha Shamana with Ama Pachana
Predominant therapeutic target	Degenerative Vata disorders	Inflammatory Vata-Kaphaja disorders
Major pharmacological activities	Anti-inflammatory, analgesic, antioxidant, neuroprotective	Anti-inflammatory, analgesic, immunomodulatory, antioxidant
Effect on Agni	Moderate Deepana-Pachana	Strong Deepana-Pachana
Effect on Srotas	Srotoshodhana and Vatanulomana	Srotoshodhana with Ama elimination
Tissue action	Asthi-Majja-Snayu nourishment	Reduction of inflammation and restoration of channel patency

Integrative Interpretation

The pathophysiology of sciatica involves mechanical compression, inflammatory cytokine release, oxidative stress, neural ischemia, and altered pain transmission. The Ayurvedic concepts of **Vata Prakopa**, **Ama**, **Margavarana**, and **Srotodushti** provide a complementary explanation for these pathological processes. Erandadi Kwatha and Simhasyadi Kwatha appear to address multiple stages of disease progression through a combination of **Vata pacification**, **Agni correction**, **Ama digestion**, **Srotoshodhana**, **anti-inflammatory**, **analgesic**, **antioxidant**, and **neuroprotective** actions. This multimodal approach supports their traditional use in Gridhrasi and provides biological plausibility for their integration into evidence-informed management strategies for sciatica.

III.DISCUSSION

The present review compared Erandadi Kwatha and Simhasyadi Kwatha, two classical Ayurvedic formulations commonly indicated for the management of Gridhrasi. Both formulations are based on the principles of Vata Shamana, Ama Pachana, and Srotoshodhana, thereby addressing the underlying pathogenesis of Gridhrasi rather than providing only symptomatic relief.^{1, 6}

Classical Ayurvedic texts describe Gridhrasi as a Vata Nanatmaja Vyadhi characterized by radiating pain, stiffness, restricted movement, and gait disturbances, which closely resemble the clinical features of sciatica.^{1, 6} While modern medicine attributes sciatica mainly to nerve root compression and inflammation, Ayurveda explains the condition through Vata Prakopa, often associated with Kapha-induced Margavarana and Ama, providing a broader understanding of both degenerative and inflammatory changes.

Although both formulations exhibit Vedanasthapana, Shothahara, Deepana, and Pachana actions, their therapeutic emphasis differs. Erandadi Kwatha, owing to its Snigdha, Ushna, and Vatanulomana properties, appears more beneficial in Vataja Gridhrasi associated with degeneration and tissue depletion. In contrast, Simhasyadi Kwatha possesses stronger Deepana-Pachana and Ama-pachana actions, making it more suitable for Vata-Kaphaja Gridhrasi characterized by inflammation, stiffness, and channel obstruction.^{7, 14}



Modern pharmacological studies have shown that the constituent herbs of both formulations possess anti-inflammatory, analgesic, antioxidant, and neuroprotective activities, which may reduce inflammatory cytokines, oxidative stress, and neural edema implicated in sciatica.^{9-12, 18} These findings provide scientific support for their traditional use.

However, the available clinical evidence is limited by small sample sizes, methodological heterogeneity, and inadequate standardization. Therefore, although both formulations appear promising, their comparative efficacy cannot be conclusively established.

Strengths

This review integrates classical Ayurvedic concepts with contemporary biomedical evidence, providing a comparative understanding of the therapeutic rationale, pharmacological activities, and probable mechanisms of Erandadi Kwatha and Simhasyadi Kwatha in Gridhrasi.

Limitations

The available evidence is largely derived from small clinical studies and experimental research on individual herbal ingredients. Well-designed multicentric randomized controlled trials using standardized formulations are needed to validate the comparative efficacy, safety, and mechanisms of action of these classical formulations.

IV. CONCLUSION

Gridhrasi is a debilitating Vata-predominant disorder that closely corresponds to sciatica in contemporary medicine. Classical Ayurvedic literature provides a comprehensive understanding of its etiopathogenesis, emphasizing the roles of Vata Prakopa, Kapha-associated Margavarana, Ama, and Srotodushiti. Erandadi Kwatha and Simhasyadi Kwatha are classical formulations that address these pathological mechanisms through Vata-Kapha Shamana, Deepana, Pachana, Srotoshodhana, Vedanasthapana, and Shothahara actions.

The available experimental and clinical evidence suggests that both formulations possess anti-inflammatory, analgesic, antioxidant, immunomodulatory, and neuroprotective properties that may contribute to pain relief, reduction of inflammation, and improvement of functional mobility in patients with Gridhrasi. Erandadi Kwatha appears more suitable for Vata-dominant degenerative presentations, whereas Simhasyadi Kwatha may be particularly beneficial in Vata-Kaphaja Gridhrasi associated with Ama and inflammatory manifestations.

Although the current evidence supports the traditional use of both formulations, robust multicentric randomized controlled trials, standardized pharmaceutical studies, and mechanistic investigations are required to establish their comparative efficacy, safety, and therapeutic mechanisms with greater scientific certainty.

Clinical Implications

Erandadi Kwatha and Simhasyadi Kwatha may be considered evidence-informed Ayurvedic interventions for the management of Gridhrasi, particularly in patients seeking integrative care.

Selection of the formulation should be individualized according to **Dosha predominance**, presence of **Ama**, disease chronicity, and overall clinical assessment.

These formulations may complement non-pharmacological interventions such as **Basti**, **Snehana**, **Swedana**, physiotherapy, ergonomic correction, and therapeutic exercise.

Standardization of formulation composition, quality control, and dosage is essential to improve reproducibility and facilitate future clinical research.

Collaborative research integrating Ayurveda with contemporary neuroscience, pharmacology, and molecular biology may further elucidate the therapeutic mechanisms and optimize evidence-based management of sciatica.



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