



# An Integrative Review of Gridhrasi: Exploring Ayurvedic and Modern Perspectives on Sciatica

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## ABSTRACT

*Gridhrasi*, recognized in Ayurveda as a *Nanaatmaja Vata Vyadhi*, closely resembles sciatica in modern medicine, presenting with radiating pain, stiffness, pricking sensations, and restricted limb movement that significantly impair daily activities. Originating in the *Pakvashaya* and affecting the *Sphika* and *Kati* regions, its symptoms follow the course of the sciatic nerve. This review compiles information from classical Ayurvedic texts, contemporary literature, and recent research, alongside modern medical insights, to explore its *Nidana* (etiology), *Samprapti* (pathogenesis), clinical features, and management strategies. Ayurvedic treatment emphasizes a comprehensive approach including *Snehana*, *Svedana*, *Basti*, *Siravedha*, *Agni Karma*, and dietary-lifestyle modifications to pacify aggravated *Vata* and *Kapha*, alleviate symptoms, and restore mobility, while modern care focuses on analgesics, physiotherapy, and surgical interventions in severe cases. The correlation between both systems highlights overlapping symptomatology and the potential for integrative management. Further interdisciplinary research is needed to validate traditional therapies and establish evidence-based protocols for effective treatment of *Gridhrasi*.

**Keywords:** *Gridhrasi*, Sciatica, *Vata Vyadhi*, *Ayurveda*, Integrative Management.

## Introduction

*Gridhrasi* (Sciatica) is a painful musculoskeletal-neurological disorder characterized by radiating pain that begins from the *Kati Pradesa* (lumbar region) and extends down to the *Padanguli* (toes). This pain severely hampers the patient's ability to perform routine daily activities. In contemporary medicine, sciatica management often relies on symptomatic pharmacological treatments like analgesics, anti-inflammatory drugs, muscle relaxants and in some cases surgical interventions, such as microdiscectomy or laminectomy. However, these approaches carry the risk of adverse effects, recurrence, or surgical complications<sup>1</sup>.

In *Ayurveda*, numerous classical references describe *Gridhrasi* as a distinct clinical entity, not merely a symptom of another disease. It is included under *Vatavyadhi* and is classified in two ways *Samanyaja* and *Nanatmaja* varieties. *Nanatmaja Vyadhi* are those caused by the vitiation of a single *dosha*. *Acarya Charaka* lists *Gridhrasi* among the *Vataja Nanatmaja Vyadhi* and also categorizes it under *Mahagada*, implying that it is difficult to cure and often requires intensive, disease-specific treatment<sup>2</sup>.

Classical signs of *Gridhrasi* are quite distinctive—pain radiates sequentially from the *Sphik Pradesa* (buttock) to *Parsni-Pratyanguli* (heel to toes) on the affected side. The clinical features are enumerated as *Ruk* (deep pain), *Toda* (pricking sensation), *Stambha* (stiffness), and *Muhuspandana* (intermittent twitching), affecting *Sphika* → *Kati* → *Uru* → *Janu* → *Jangha* → *Pada* in order. Another hallmark is *Sakti-kṣepa-nigraha*, meaning restricted straight-leg raising due to severe pain, comparable to the positive straight leg raise (SLR) test in modern neurology.

*Gridhrasi* can sometimes manifest with *Kaphanubandha* an associated aggravation of *Kapha dosha* presenting additional symptoms such as *Tandra* (drowsiness), *Gaurava* (heaviness), and *Arochaka* (loss of appetite)<sup>3</sup>. The term “*Gridhrasi*” itself is derived from *Gridhra* (vulture), describing the characteristic limping gait and posture adopted by patients to avoid pain, which resembles the awkward walking style of a vulture.

From the modern biomedical perspective, *Gridhrasi* corresponds closely to sciatic syndrome or lumbosacral radiculopathy, where pain follows the distribution of the sciatic nerve originating from the buttock and radiating along the posterior thigh, calf, and lateral foot. The most common aetiologies include lumbar intervertebral disc herniation, degenerative spondylotic changes, spinal canal stenosis, or piriformis muscle entrapment<sup>4,5</sup>. Risk factors include occupational or accidental lumbar trauma, repetitive spinal twisting, heavy lifting, prolonged sitting, and prolonged exposure to cold and damp environments<sup>6</sup>.

While modern medicine provides useful diagnostic imaging and acute pain control, *Ayurveda* offers a holistic, pathophysiology-oriented management approach through *Shamana* (palliative) and *Shodhana* (purificatory) measures, notably *Basti Karma*, *Agnikarma*, *Siravyadha*, and internal herbal formulations. Recent randomized and controlled clinical studies have demonstrated that *Ayurvedic* interventions not only reduce pain intensity but also

improve functional mobility and quality of life in *Gridhrasi* patients often with fewer long-term adverse effects compared to repeated NSAID use or invasive surgery<sup>7,8,9</sup>.

## Historical Review

**Vedic Period:** In Indian tradition, the *Vedas* are considered the earliest source of knowledge, covering all aspects of life, including health and disease. In the *Atharvaveda*, the term “*Vatikrita*” is mentioned, which refers to disorders caused by an imbalance of *Vata dosha*<sup>10</sup>. This indicates that awareness of *Vata*-related conditions existed even in ancient times.

**Charaka Samhita:** The *Charaka Samhita* gives one of the earliest and most detailed descriptions of *Gridhrasi*. It is mentioned among the eighty *Nanatmaja Vatavyadhi* (diseases caused solely by *Vata* imbalance) in *Sutrasthana*, (*Maharogadhyaya*)<sup>11</sup>. *Charaka* classifies *Gridhrasi* into two types: *Vataja* and *Vata-Kaphaja*, and also lists it as a *Mahagada*, meaning a grave disorder that is difficult to cure.

**Sushruta Samhita:** The *Sushruta Samhita*, in *Nidanasthana*, Chapter 1 (*Vatavyadhi Nidana*), describes the causes and symptoms of *Gridhrasi*<sup>12</sup>. It highlights *Saktikshepa Nigraha*, the inability to lift the leg due to pain, which is comparable to the Straight Leg Raise (SLR) test used in modern diagnosis of sciatica.

**Ashtanga Sangraha:** In the *Ashtanga Sangraha*, *Gridhrasi* is listed as one of the 80 *Vata* disorders in *Sutrasthana*, (*Doshabhedhiya Adhyaya*). Its pathophysiology and symptoms are elaborated in *Nidanasthana*, (*Vatavyadhi Nidana*)<sup>13</sup>.

**Ashtanga Hridaya:** The *Ashtanga Hridaya* also describes *Gridhrasi* in *Nidanasthana*, and mentions *Siravyadha* (bloodletting) as a therapeutic option in *Sutrasthana*<sup>14</sup>.

**Kashyapa Samhita:** The *Kashyapa Samhita*, though incomplete in surviving manuscripts, briefly mentions *Gridhrasi* among the 80 *Vata* disorders but provides no detailed description<sup>15</sup>.

**Madhava Nidana:** The *Madhava Nidana* provides additional symptom details for both *Vataja* and *Vata-Kaphaja Gridhrasi*. In *Vataja* type, there may be *Dehasya Pravakrat* (bent or scoliosis-like posture), while in *Vata-Kaphaja* type, *Mukhapraseka* (excess salivation) and *Bhaktadvesha* (aversion to food) may occur<sup>16</sup>.

## Definition of Gridhrasi

*Gridhrasi* is described as a condition characterized by abnormal, jerking, or tossing movements of the affected leg, often associated with radiating pain. The Sanskrit word *Syaati* means “throwing action,” and the peculiar gait of the patient is compared to that of a vulture (*Gridhra*), hence the name *Gridhrasi*<sup>11</sup>.

## Synonyms (Paryaya) of Gridhrasi

In Ayurvedic literature, *Gridhrasi* has been referred to by different names:

- **Ringhinee** – by *Vachaspati Mishra*
- **Randhrinee** – by *Dalhana*
- **Radhina** – by *Aadhamalla* and *Kaashirama*.

## Causative Factors (Nidana)

In *Ayurveda*, treatment begins with the avoidance of causative factors (*Nidana*), making their identification crucial. *Nidana* is generally categorized into *Samanya* (general) and *Vishesh* (specific) causes. Interestingly, no *specific* causative factors for *Gridhrasi* are distinctly mentioned in classical texts, but general *Vata*-aggravating factors are considered relevant<sup>13</sup>.

## Dietary Factors (Aharaja Nidana)

- Excess intake of dried vegetables (*Shushka Shaka*) and dried meat (*Shushka Mamsa*)
- Alcohol consumption (*Madhyapana*)
- Prolonged sitting (*Adhyasana*)
- Insufficient food intake (*Alpasana*)
- Hard-to-digest food (*Kathina Bhojana*)
- Untimely or seasonally inappropriate diet (*Ritu Viparita Ahara*)
- Improper diet (*Mithyahara*)
- Diet causing tissue depletion (*Dhatu-kshaya-kara Ahara*)

- Intake of food incompatible with body constitution (*Satmya Viparita Ahara*)
- Excess consumption of pungent substances (*Katu Dravya Atisevana*)<sup>10</sup>.

#### Lifestyle Factors (*Viharaja Nidana*)

- Irregular physical activity (*Vishama Cheshta*)
- Excessive sexual activity (*Ati Vyavaya*)
- Overexertion (*Ati Vyayama*)
- Suppression of natural urges (*Vega Sandharana*)
- Improper posture (*Vishamashana*)
- Uncomfortable bedding (*Dukha Shayya*)
- Daytime sleeping (*Diwaswapna*)
- Staying awake at night (*Ratri Jagarana*)
- Running excessively (*Pradhavana*)
- Overactivity (*Ati Cheshta*)<sup>16</sup>.

#### Trauma-related Causes (*Agantuja Nidana*)

- Injury to vital points (*Marmaghata Abhighata*)
- Falling from height (*Prapatana*)
- Compression injuries (*Prapidana*)<sup>17</sup>.

#### Premonitory Symptoms (*Purvarupa*)

Classical Ayurvedic texts do not specifically describe premonitory symptoms (*Purvarupa*) for *Gridhrasi*. However, vague, early signs of *Vatavyadhi* (neuromusculoskeletal disorders due to *Vata* aggravation) may occur during the *Sthana Samshraya* stage of *Shadkriyakala* (disease development)<sup>14</sup>.

*Chakrapanidatta*, in his commentary, notes that minor, non-specific symptoms should be recognized as *Purvarupa*. Similarly, *Gangadhara* emphasizes subtle early manifestations as indicators of impending disease<sup>17</sup>.

#### Clinical Features (*Rupa*)

In *Vataja Gridhrasi*, *Charaka* describes the primary symptoms as *Stambha* (stiffness), *Ruka* (pain), *Toda* (pricking sensation), and *Muhuspandana* (tingling) (*Shastri, 2019*). In *Vata-Kaphaja Gridhrasi*, additional symptoms such as *Gaurava* (heaviness), *Arochaka* (loss of appetite), and *Tandra* (drowsiness) are also observed<sup>13</sup>.

According to *Sushruta* and *Vagbhatta*, the condition is characterized by *Sakthanah Kshepan Nigriharniyata* restricted movement of the lower limb<sup>12</sup>. A detailed explanation of the key clinical features is given below:

**Table 1: Classical Symptoms of *Gridhrasi***

Symptoms	Description	Type
<i>Ruka</i>	Pain starting from <i>Sphik</i> (hip) radiating to <i>Kati</i> , <i>Pristha</i> , <i>Uru</i> , <i>Janu</i> , <i>Jangha</i> , <i>Pada</i> .	<i>Vataja</i> & <i>Vatakaphaja</i>
<i>Toda</i>	Pricking sensation along sciatic nerve path	<i>Vataja</i> & <i>Vatakaphaja</i>
<i>Stambha</i>	Stiffness or rigidity of affected leg	<i>Vataja</i>
<i>Muhuspandana</i>	Twitching or throbbing along nerve distribution	<i>Vataja</i>
<i>Sakthanaha Nigrhaniyat Kshepanam</i>	Restricted straight leg raising (SLR Test positive)	Both Types
<i>Deha Pravakrata</i>	Lateral/forward bending posture due to pain	Both Types

#### 1. *Ruk* (Pain)

Pain is considered the most significant symptom of *Gridhrasi*. *Chakrapanidatta*, in his commentary, explains that the pain typically begins in the *Sphik* (hip), progresses to the *Kati* (waist), *Pristha* (back), *Uru* (thigh), *Janu* (knee), *Jangha* (calf), and finally reaches the *Pada* (foot), closely following the course of the sciatic nerve<sup>16</sup>. In modern medicine, this pattern corresponds to radicular pain distribution in sciatica.

## 2. *Toda* (Pricking Sensation)

Described by both *Madhava* and *Charaka*, *Toda* is a sharp, pricking pain that may run the length of the sciatic nerve pathway. From a modern perspective, this corresponds to neuropathic pain caused by irritation of the L5 or S1 nerve roots, which may also be accompanied by sensory disturbances in the foot<sup>16</sup>.

## 3. *Stambha* (Stiffness)

*Charaka* notes stiffness in the affected limb due to *Sheeta Guna* (cold property) of aggravated *Vata*. This stiffness results in a feeling of rigidity throughout the leg, making the patient avoid movement due to pain. Even when walking is possible, full range of motion in the affected limb is restricted, and muscle tightness is evident<sup>14</sup>.

## 4. *Muhuspandana* (Twitching/Throbbing)

*Muhuspandana* is a throbbing or pulsating sensation experienced along the course of the *Gridhrasi Nadi* (sciatic nerve), extending from the hip to the calf. It indicates localized nerve irritation and possible muscular spasm<sup>17</sup>.

## 5. *Sakthanaha Kshepanam Nigrhaniyat* (Positive SLR Test)

As per *Sushruta*, this refers to difficulty in lifting the leg due to pain and nerve tension. *Dalhana* explains that the *Kandara* (tendon/nerve structure) associated with *Gridhrasi* restricts extension. This symptom parallels the modern Straight Leg Raise (SLR) test, a standard clinical sign in sciatica<sup>11</sup>.

## 6. *Deha Pravakrata* (Sciatic Scoliosis)

Mentioned by *Madhava*, this symptom involves a lateral or forward bending posture due to pain. The patient tends to keep the affected leg flexed, shifts body weight to the unaffected leg, and adopts a compensatory posture. In contemporary medicine, this presentation aligns with sciatic scoliosis, a protective posture to minimize nerve tension<sup>13</sup>.

## Pathogenesis (*Samprapti*)

While classical texts do not provide a detailed *Samprapti* for *Gridhrasi*, it can be inferred based on *Pratyaksha Lakshana* (observable signs and symptoms) in patients. The condition primarily involves *Vata Dosha* aggravation, with *Kapha* association in *Vata-Kaphaja* type. The pathology follows the course of the sciatic nerve, beginning from the hip and radiating downward<sup>10,13</sup>.

## Specific *Samprapti* of *Vataja* and *Vata-Kaphaja Gridhrasi*

Acharya *Charaka* distinctly explains *Vataja Gridhrasi* as a condition arising from *Vata Prakopa* (aggravation) or *Vata Vridhi* (increase in *Vata*), producing the characteristic symptoms of *Stambha* (stiffness), *Ruka* (pain), *Toda* (pricking sensation), and *Muhu Spandana* (intermittent throbbing)<sup>18</sup>.

In *Vata-Kaphaja Gridhrasi*, in addition to the above *Vataja* symptoms, Acharya *Charaka* describes *Aruchi* (loss of appetite), *Tandra* (drowsiness), and *Gaurava* (heaviness)<sup>13</sup>. The *Samprapti* of this type involves both *Vata Prakopaka Nidana* (factors aggravating *Vata*) and *Kapha Prakopaka Nidana* (factors aggravating *Kapha*), leading to *Agnimandya* (diminished digestive fire). This impaired digestion results in the formation of *Ama* (metabolic toxins). The *Ama* further impairs the metabolic activity (*Agni*) of *Rasa Dhatu*, leading to the accumulation of *Kapha* as the *Mala* (waste product) of *Rasa Dhatu* metabolism<sup>19</sup>.

This dual *Dosha* aggravation explains why *Vata-Kaphaja Gridhrasi* tends to present with both neuropathic pain features and systemic sluggishness.

## *Sadhya-Asadhya Tattva* (Prognosis) of *Gridhrasi*

Before initiating treatment, it is essential to assess the *Sadhya-Asadhya Tattva* (curability or incurability) of the disease. *Sushruta* classifies *Vata Vyadhi* as *Mahagada* conditions that are severe and potentially life-threatening or incurable<sup>12</sup>. *Vagbhata* refers to them as *Maharoga*, highlighting their chronic, stubborn nature and poor prognosis. Most classical *Acharyas* agree that *Vata Vyadhi* including *Gridhrasi* are often difficult to cure completely and require long-term management<sup>20</sup>.

## Ayurvedic Treatment of *Gridhrasi*

*Gridhrasi* is classified as one of the *Nānātmaja Vata Vyadhi*<sup>18</sup>. While general management principles for *Vata Vyadhi* can be applied, classical texts also describe some specific therapeutic approaches. Based on a review of the *Brihatrayi* and *Laghutrayi*, the treatment can be summarised as follows:

**Table 2: Ayurvedic Management Approaches for *Gridhrasi***

Therapy	Description	Indication
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<b>Snehana</b>	Oleation therapy (internal & external) – <i>Abhyanga, Pizichill, Avagaha</i>	All types
<b>Svedana</b>	Sudation – <i>Pinda Sveda, Baluka Sveda, Avagaha Sveda</i>	<i>Vataja &amp; Vatakaphaja</i>
<b>Vamana</b>	Therapeutic emesis	<i>Vatakaphaja</i> type only
<b>Virechana</b>	Mild purgation	All types
<b>Basti</b>	Medicated enema – primary treatment for <i>Vata Vyadhi</i>	All types
<b>Siravedha</b>	Bloodletting between <i>Kandara</i> and <i>Gulpha</i>	Severe pain/stiffness
<b>Agni Karma</b>	Thermal cauterization at specific <i>marma</i> points	Chronic or resistant cases

#### A) Snehana (Oleation Therapy)

*Snehana*, both internal (*Snehapana*) and external, is recommended for *Gridhrasi*. External oleation includes *Abhyanga* (therapeutic massage), *Pizichill* (oil bath), *Avagaha* (tub bath), and *Pariseka* (oil pouring). Internal oleation can be given as *Mridu Shodhana* (mild purgation) or as *Shamana* (pacifying treatment)<sup>19</sup>.

#### B) Svedana (Sudation Therapy)

Several forms of *Svedana* are described in classical *Ayurveda*, but those most suitable for *Gridhrasi* include *Pizichill*, *Avagaha Sveda*, and *Pinda Sveda*. In *Vata-Kaphaja Gridhrasi*, *Valuka Sveda* (dry fomentation) and *Ruksha Pinda Sveda* are especially useful. The selection of herbs and media can be modified depending on the doshic predominance<sup>21</sup>.

#### C) Vamana (Therapeutic Emesis)

According to *Chakrapani* and *Bhavaprakasha*, *Vamana* may be performed in *Vata-Kaphaja Gridhrasi* after *Snehana* and *Svedana* to eliminate aggravated *Kapha*. However, it is generally not indicated in pure *Vataja Gridhrasi*<sup>14</sup>.

#### D) Virechana (Therapeutic Purgation)

Mild *Virechana* is beneficial in *Gridhrasi*, as it helps remove *doshas* not only from the *Amasaya* and *Pakwashaya* but also systemically. This improves digestion and alleviates pain<sup>16</sup>.

#### E) Basti (Medicated Enema)

*Basti* is considered the best therapy for *Vata* disorders and is especially effective in *Gridhrasi*. It is indicated in symptoms like stiffness, pain in the extremities, constipation, and loss of appetite—common in *Gridhrasi* patients. Both *Niruha Basti* (decoction enema) and *Anuvasana Basti* (oil enema) are useful<sup>13</sup>.

#### F) Siravedha (Bloodletting)

*Charaka* recommends *Siravedha* between the *Kandara* and *Gulpha* for *Gridhrasi*. *Sushruta* and *Vagbhata* suggest performing it either four *angulas* above or below the knee joint. This is believed to relieve pain by reducing local congestion<sup>12</sup>.

#### G) Agni Karma (Thermal Cauterization)

Almost all major Acharyas recommend *Agni Karma* in *Gridhrasi*. *Charaka* prescribes its application between *Kandara* and *Gulpha*, while *Sushruta* and *Vagbhata* indicate its use in *Snayu-gata* and *Sandhi-gata Vata Vyadhi*. For *Gridhrasi*, *Agni Karma* is generally performed four *angulas* posterior to the *Indrabasti Marma*<sup>22</sup>.

### Pathya-Apathya (Dietary and Lifestyle Recommendations)

#### Pathya (Recommended)<sup>20,21</sup>:

- Warm and *Vata*-pacifying foods (*Vata-shamaka ahara*) such as *Shingada*, *Ushna* preparations, *Navanita* (fresh butter), *Godhuma* (wheat), *Draksha* (raisins), *Dugdha* (milk)
- Mild sour and salty tastes (*Amla* and *Lavana rasa*) in moderation
- Gentle oil massage (*Abhyanga*), kneading (*Mardana*), warm baths (*Snana*), and soft bedding (*Bhushayya*)

#### Apathya (To be Avoided)<sup>22</sup>:

- Cold, dry, and excessively light foods
- Exposure to cold wind and prolonged sitting without movement
- Suppression of natural urges

## Discussion

*Gridhrasi* is a disorder originating in the *Pakvashaya* (large intestine) with its primary site of manifestation in the *Sphika* and *Kati* regions, corresponding to the lumbar spine. Classical *Ayurvedic* texts categorize it as one of the 80 types of *Nanaatmaja Vata Vyadhi*, describing it as a distinct clinical entity. *Acharya Sushruta* highlighted the role of *Kandara* (tendinous structures) in the pathogenesis of *Gridhrasi*, extending from the *Paarshni* (heel) to the *Anguli* (toes). He also described *Sakthanaha Kshepammigrahaniyat* the restriction in raising the affected limb as a key diagnostic sign. This is now comparable to the Straight Leg Raise (SLR) test used in modern clinical practice, which serves as an important objective measure for diagnosis and treatment assessment. From a contemporary medical standpoint, *Gridhrasi* closely resembles sciatica, characterized by pain radiating along the course of the sciatic nerve originating in the lower back, passing through the posterior thigh and calf, and extending to the lateral aspect of the foot. Common aetiologies include intervertebral disc herniation and degenerative spinal changes. A history of trauma, such as sudden twisting of the spine, lifting heavy loads, or prolonged exposure to cold, is often reported. The resulting pain and functional impairment significantly disrupt daily activities and may cause substantial disability if left untreated.

## Conclusion

*Gridhrasi*, described in *Ayurveda* as a *Nanaatmaja Vata Vyadhi*, bears striking similarity to the clinical presentation of sciatica in modern medicine. Both traditions recognize its debilitating nature, with symptoms such as radiating pain, stiffness, restricted limb movement, and sensory disturbances significantly impairing quality of life. *Ayurvedic* texts offer a comprehensive understanding of its *Samprapti* (pathogenesis) and management through *Snehana*, *Svedana*, *Basti*, *Siravedha*, and *Agni Karma*, along with specific *Pathya-Apathya* regimens. Modern medicine, meanwhile, correlates these symptoms to neuropathic pain resulting from compression or irritation of the sciatic nerve, most often due to disc pathology or degenerative spinal changes.

Integrating *Ayurvedic* principles with modern diagnostic tools may enhance therapeutic outcomes, reduce recurrence, and improve patient functionality. Early diagnosis, individualized treatment, and adherence to preventive measures are essential in managing *Gridhrasi* effectively. Further interdisciplinary clinical research is warranted to validate classical *Ayurvedic* interventions and establish evidence-based protocols for holistic management.

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