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# Psychosocial and ayurvedic perspectives on sciatica syndrome (gridhrasi): An integrative review

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#### Abstract

Sciatica syndrome, commonly referred to as sciatica, is a debilitating condition marked by radiating pain along the path of the sciatic nerve, typically affecting one side of the lower body. Traditionally viewed through the lens of mechanical and anatomical factors, recent research underscores the influence of psychosocial determinants including depression, stress, anxiety, and occupational strain on both the onset and chronicity of the disorder. In Ayurveda, this condition is identified as *Gridhrasi*, a classic *Vata Vyadhi*, characterized by radiating pain, stiffness, and restricted mobility. This article presents an integrative review exploring both psychosocial and Ayurvedic perspectives on sciatic syndrome, emphasizing the need for a biopsychosocial model in assessment and treatment.

Keywords: Sciatica, Gridhrasi, psychosocial factors, Ayurveda, chronic pain, Vata Vyadhi

## Introduction

Sciatica, characterized by radiating pain originating from the lumbar spine and traveling down the leg, often arises due to compression or irritation of the sciatic nerve. While physical factors such as disc herniation and spinal stenosis are commonly implicated <sup>[1]</sup>, a growing body of evidence reveals that psychosocial factors including emotional stress, fear-avoidance beliefs, and occupational dissatisfaction play crucial roles in the manifestation and chronicity of sciatica <sup>[2,3\*]</sup>.

In Ayurveda, this condition is described under the term Gridhrasi, a *Vatavyadhi* presenting with similar clinical features. The integrative model combining modern and Ayurvedic views can offer a more comprehensive approach to understanding and managing sciatic syndrome. This article investigates psychosocial contributions to sciatica and explores Ayurvedic conceptualizations and therapeutic interventions relevant to Gridhrasi.

## Materials and Methods Study Design

This review article is based on a thematic analysis of scientific and classical Ayurvedic literature. It synthesizes current research from both modern biomedical and Ayurvedic domains concerning the pathophysiology, risk factors, and treatment of sciatic syndrome.

## **Data Sources**

Electronic databases such as PubMed, ScienceDirect, AYUSH Research Portal, and Google Scholar were searched using keywords: "sciatica", "*Gridhras*i", "psychosocial factors", "*Vata Vyadhi*", "Ayurveda and sciatica", and "Ayurvedic *basti* for sciatica". Additionally, classical Ayurvedic texts including Charaka Samhita, Sushruta Samhita, and Madhava Nidana were reviewed [4, 5, 6].

#### **Inclusion Criteria**

- Peer-reviewed articles and classical Ayurvedic texts
- Studies published between 2000 and 2024
- Literature discussing either psychosocial or Ayurvedic perspectives on sciatica

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#### **Exclusion Criteria**

- Non-human studies
- Purely surgical or interventional mechanical management studies

#### Results

## **Psychosocial Factors Associated with Sciatica**

- A consistent set of psychosocial variables has been found to correlate with the incidence, severity, and chronicity of sciatic pain:
- Depression and Anxiety: Associated with lower pain thresholds and reduced treatment responsiveness [2].
- Stress and HPA Axis Dysfunction: Elevated cortisol levels due to chronic stress can sensitize nociceptive pathways <sup>[7]</sup>.
- Catastrophizing and Fear-Avoidance: These beliefs limit physical activity, contributing to deconditioning and worsening disability [3].
- Occupational Stress: Job dissatisfaction, poor ergonomics, and low social support at work are strongly linked to chronic sciatica [8].
- Poor Coping Mechanisms: Maladaptive behaviors such as withdrawal and overmedication further complicate recovery [9].
- Social Isolation: Lack of emotional or practical support intensifies the subjective pain experience [10].

#### Discussion

This integrative review demonstrates that sciatica is not merely a biomechanical condition but one heavily influenced by psychosocial factors. The bio-psycho-social model of pain offers a comprehensive framework in which emotional, cognitive, and environmental influences are acknowledged alongside anatomical disruptions [11]. Depression, anxiety, and work-related stress not only exacerbate perceived pain but can also perpetuate chronicity by reducing motivation for rehabilitation and fostering avoidant behaviors [12].

Ayurveda's perspective aligns well with this understanding. *Gridhrasi* is primarily considered a manifestation of aggravated *Vata*, which governs movement and nerve conduction. When compounded with *Kapha* or obstructed by *Ama* (toxins), the condition presents as stiffness, radiating pain, and functional impairment <sup>[4,5]</sup>. Ayurveda not only recognizes the somatic manifestations but also indirectly addresses psychological components through its emphasis on *Dinacharya* (daily routines), *Sadvritta* (ethical lifestyle), and *Rasayana* (rejuvenation therapy) for mental well-being.

Among Ayurvedic treatments, *Basti* (medicated enema) is particularly emphasized for *Vatavyadhi*, with clinical evidence supporting its efficacy in managing pain and stiffness associated with sciatica <sup>[13]</sup>. The use of medicated oils such as *Sahacharadi taila*, *Ksheerabala taila*, and oral formulations like *Yogaraja Guggulu* target both local pathology and systemic imbalances <sup>[6]</sup>.

Modern pain management strategies focusing solely on anatomical correction (e.g., surgery) may neglect these holistic determinants. Thus, integrative care that encompasses psychological assessment, ergonomic corrections, and Ayurvedic therapy may improve outcomes in chronic sciatica cases.

#### Conclusion

Sciatica syndrome is a multifactorial condition where psychosocial dynamics significantly influence its onset and chronicity. Anxiety, depression, occupational dissatisfaction, and fear-avoidance behaviors amplify pain perception and hinder recovery. Ayurveda offers a parallel yet complementary view through the doctrine of *Vata* imbalance in *Gridhrasi*. Ayurvedic modalities like *Basti*, *Rasayana*, and ethical living address both physical and psychological components. Integrative management that includes psychological screening and Ayurvedic therapies may provide long-term relief and improve quality of life in individuals suffering from sciatic syndrome.

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