

A Narrative Review on the Role of Shirodhara in the Management of Grahani Roga with Special Reference to Irritable Bowel Syndrome

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Abstract

Ayurveda considers *Agni* to be the fundamental force governing digestion, metabolism, and overall health, with *Grahani* described as its functional seat. Disturbance of *Agni* due to faulty diet, irregular lifestyle, and psychological stress leads to incomplete digestion and formation of *Ama*, resulting in *Grahani Roga*. This condition exhibits clinical features such as altered bowel habits, abdominal discomfort, and chronicity, which closely resemble those of irritable bowel syndrome (IBS) described in modern medicine. IBS is recognised as a functional gastrointestinal disorder with a strong association to stress and gut–brain axis dysregulation, making it comparable to *Grahani Roga* from a psychosomatic perspective.

Shirodhara, a classical Panchakarma therapy involving the continuous pouring of medicated liquids over the forehead, is traditionally indicated in stress-related and psychosomatic disorders. Its calming influence on the nervous system and regulatory effect on mental functions suggest a potential role in managing digestive disorders aggravated by psychological factors. Conceptual analysis of classical Ayurvedic texts and contemporary scientific literature indicates that Shirodhara may indirectly support digestive function by reducing stress, stabilising neuroendocrine responses, and improving gut–mind coordination.

This narrative review highlights the conceptual and clinical parallels between *Grahani Roga* and IBS and discusses the relevance of Shirodhara as a supportive, holistic therapeutic modality. While classical indications and emerging scientific explanations are encouraging, further clinical research is required to establish its role with greater clarity.

Keywords: *Grahani Roga*, Irritable Bowel Syndrome, Shirodhara, *Agni*, Psychosomatic Disorders.

INTRODUCTION

Ayurveda places great emphasis on *Agni*, the functional principle responsible for digestion, metabolism, and nourishment of the body. The normal functioning of *Agni* ensures proper transformation of food into energy and tissues, while its derangement leads to disease.^[1] *Grahani* is described as the anatomical and functional seat of *Agni*, where ingested food is retained and processed until complete digestion occurs.^[2] Thus, the state of *Grahani* reflects the strength and stability of digestive fire.

When *Agni* becomes impaired due to inappropriate diet, irregular food habits, excessive intake of heavy or dry foods, suppression of natural urges, or prolonged mental stress, digestion becomes incomplete, resulting in the formation of *Ama*.^[3] This pathological process gives rise to *Grahani Roga*, a disorder primarily involving deranged digestion and absorption. The condition is characterised by the vitiation of *Samana Vata*, *Pachaka Pitta*, and *Kledaka Kapha*, with secondary involvement of mental regulatory factors, indicating a strong body–mind interaction.^[4]

Classical Ayurvedic literature acknowledges the reciprocal relationship between physical illness and mental disturbances, a concept that aligns closely with modern psychosomatic models. In contemporary medicine, *irritable bowel syndrome (IBS)* represents a functional gastrointestinal disorder with comparable features such as altered bowel habits, abdominal discomfort, and the absence of structural pathology.^[5] Stress is widely recognised as a key contributor to both the onset and persistence of IBS symptoms, reinforcing its psychosomatic nature.^[6]

Conventional management of IBS primarily focuses on symptomatic control and lifestyle modification, often with limited long-term benefit. In contrast, Ayurvedic treatment aims to correct the underlying *Agni dushti* and restore physiological balance.^[7] Among various therapeutic approaches, *Shirodhara* is considered significant for its calming effect on the nervous system and its potential role in alleviating stress-related digestive dysfunctions.^[8]

In view of the increasing prevalence of IBS and the limitations of existing treatment options, exploring classical Ayurvedic interventions becomes relevant. This study, therefore, seeks to review the role of Shirodhara in the

management of Grahani Roga, with particular reference to IBS, and to assess its potential as a supportive and holistic therapeutic modality.

MATERIALS AND METHODS

This review was conducted through a systematic analysis of classical Ayurvedic texts, including *Charaka Samhita*, *Sushruta Samhita*, and *Ashtanga Hridaya*, along with relevant contemporary scientific literature on irritable bowel syndrome. Conceptual correlations between Grahani Roga, IBS, and the therapeutic role of Shirodhara were critically analysed to interpret their clinical relevance.

RESULTS

1. Review of Grahani

The review of classical Ayurvedic literature establishes Grahani as a vital functional entity intimately associated with *Agni*. Various synonyms, such as *Agnisthana*, *Agnyadhishthana*, *Pittadhara Kala*, and *Antrani*, collectively emphasise its role in digestion, absorption, and metabolic transformation.^[9] Although differences exist among Acharyas regarding its exact anatomical location, there is uniform agreement that Grahani is situated between *Amashaya* and *Pakvashaya* and functions under the direct influence of *Agni*.^[10] Grahani is described as a *Matruja Bhava*, indicating its soft tissue origin and susceptibility to functional derangements.

The analysis of *Nidana Panchaka* highlights *Mandagni* as the principal etiological factor in Grahani Roga, arising from improper dietary habits, irregular eating patterns, lifestyle errors, suppression of natural urges, and psychological stress.^{[11][12]} Premonitory symptoms such as thirst, lethargy, delayed digestion, anorexia, and abdominal sounds are consistently reported. Fully developed Grahani Roga presents with characteristic bowel irregularities, including alternating constipation and diarrhoea, passage of undigested or foul-smelling stools, abdominal pain, bloating, weakness, and systemic symptoms.^{[13][14][15]} Dosha-wise classification reveals distinct clinical patterns in Vataja, Pittaja, Kaphaja, and Sannipataja Grahani. Samprapti analysis confirms that deranged *Agni* leads to *Ama* formation, Dosha vitiation, and involvement of *Annavaha* and *Purishavaha Srotas*, explaining the chronic and relapsing nature of the disease.

2. Review of Irritable Bowel Syndrome (IBS)

The biomedical review of IBS identifies it as a functional gastrointestinal disorder characterised by recurrent abdominal pain, altered bowel habits, and bloating in the absence of structural pathology.^[16] Epidemiological data indicate a high prevalence worldwide, with greater occurrence in younger adults and females. IBS is categorised into constipation-predominant, diarrhoea-predominant, mixed, and unclassified subtypes based on bowel patterns.^[17]

Current evidence suggests that IBS has a multifactorial pathophysiology involving gut–brain axis dysregulation, visceral hypersensitivity, gastrointestinal dysmotility, altered gut microbiota, low-grade inflammation, increased intestinal permeability, food intolerance, and psychosocial stress.^[18] Diagnosis is based on the Rome IV criteria using a positive diagnostic approach, while excluding alarm features suggestive of organic disease. Management strategies largely focus on dietary and lifestyle modifications, pharmacological therapy tailored to IBS subtypes, and psychological interventions.^[19] Despite these measures, IBS often follows a chronic course with recurrent symptoms, impacting quality of life and mental well-being.

3. Review of Shirodhara

The review of Shirodhara reveals it as a well-established *Panchakarma* procedure with significant relevance in disorders involving the mind–body axis. Shirodhara is defined as the continuous and rhythmic pouring of medicated liquids such as *Taila*, *Takra*, *Kshira*, or *Kwatha* over the forehead from a specific height for a predetermined duration.^[20] It is classified under *Murdha Taila*, along with *Abhyanga*, *Pichu*, and *Basti*, and is considered superior due to its stronger and sustained therapeutic effects on the central nervous system.

Classical Ayurvedic texts indicate Shirodhara in conditions such as *Anidra*, *Chittodvega*, *Manoavasada*, *Unmada*, *Apasmara*, *Shiroroga*, and other psychosomatic and neuropsychological disorders.^[21] Its therapeutic utility is attributed to its action on *Prana Vayu*, *Udana Vayu*, and *Sadhaka Pitta*, which govern higher mental functions, emotional regulation, and stress responses.^[22] By stabilising these functional entities, Shirodhara promotes mental calmness, emotional balance, and sensory regulation.

From a procedural perspective, Shirodhara involves systematic stages of *Purva Karma*, *Pradhana Karma*, and *Paschat Karma*, ensuring both safety and efficacy. The gentle, uninterrupted flow of warm liquid over the forehead is believed to exert mechanical, thermal, and vibratory stimuli, particularly over the *Sthapani Marma* region.^[23] This region is traditionally associated with higher cognitive and regulatory functions, suggesting a direct influence on neuropsychological processes.

Contemporary interpretations propose that Shirodhara induces a state of deep relaxation by reducing sympathetic nervous system activity and enhancing parasympathetic dominance. Observational and experimental studies have reported reductions in stress markers, normalisation of sleep patterns, decreased anxiety levels, and improved emotional well-being following Shirodhara.^[21] Neurophysiological explanations include modulation of hypothalamic–pituitary–adrenal (HPA) axis activity, reduction in circulating stress hormones such as cortisol, and promotion of alpha brain wave activity associated with relaxed alertness.^[24]

Stress is known to disrupt *Agni*, aggravate *Vata*, and impair coordination between digestive and mental functions. By alleviating stress and restoring neuroendocrine balance, Shirodhara may indirectly contribute to the normalisation of digestive processes, improved bowel regularity, and reduction in symptom severity. This aligns with modern concepts of gut–brain axis modulation, where psychological interventions play a key role in managing functional bowel disorders.

DISCUSSION

The present review offers a conceptual interpretation of Grahani Roga in light of both classical Ayurvedic descriptions and current biomedical perspectives on irritable bowel syndrome (IBS). The reviewed material indicates that Ayurveda approaches Grahani primarily as a functional unit governed by *Agni*, rather than as a fixed anatomical structure. This functional orientation provides a coherent explanation for disorders marked by fluctuating symptoms, absence of structural pathology, and long-term persistence—features that are commonly encountered in IBS. The emphasis on impaired *Agni* helps to explain why symptoms vary with diet, lifestyle, and mental state.

Dietary indiscretions, irregular meal patterns, and lifestyle factors described as causative in Grahani Roga closely resemble known precipitating factors in IBS. The involvement of *Samana Vata* and *Pachaka Pitta* suggests disturbed regulation of digestion, absorption, and intestinal movement, which may be compared with altered gut motility and sensitivity described in modern literature. The chronic and relapsing nature of Grahani further supports its relevance as an Ayurvedic correlate of IBS rather than a transient digestive disturbance.

An important theme emerging from the reviewed data is the consistent acknowledgement of psychological influences on digestive function. Ayurvedic explanations involving *Manas*, *Prana Vayu*, and *Sadhaka Pitta* reflect an understanding that emotional stress can weaken digestion and sustain disease processes. This concept finds strong resonance in contemporary models of IBS, where stress-related dysregulation of the gut–brain axis is recognised as a major contributor to symptom persistence and severity. Thus, both systems converge on the view that effective management must extend beyond the gastrointestinal tract alone.

Within this context, Shirodhara assumes particular importance. The reviewed literature suggests that Shirodhara exerts its primary influence on the nervous and neuroendocrine systems, producing a state of mental calmness and physiological relaxation. Although it does not act directly on digestive organs, its ability to reduce stress and stabilise higher regulatory functions may indirectly support digestive balance. From an Ayurvedic standpoint, this can be understood as the pacification of *Prana Vayu* and normalisation of *Sadhaka Pitta*, thereby reducing *Vata*-driven irregularity in bowel function.

Contemporary explanations for the effects of Shirodhara, including reduced sympathetic activity and improved autonomic balance, provide a plausible scientific basis for its traditional indications. These effects parallel the goals of modern psychological therapies used in IBS, which aim to modulate stress responses and improve gut–brain communication. Shirodhara may therefore be viewed as a traditional mind–body intervention that complements dietary, lifestyle, and *Agni*-oriented therapeutic strategies.

Despite these conceptual strengths, the available evidence remains limited by a lack of large, controlled clinical studies specifically evaluating Shirodhara in Grahani Roga or IBS. Variability in treatment protocols and patient selection further complicates interpretation. These limitations indicate the need for systematic clinical research with standardised methodologies and clearly defined outcome measures.

CONCLUSION

Grahani Roga and irritable bowel syndrome share a common functional and psychosomatic basis centred on impaired digestion and stress-related dysregulation. Shirodhara, by modulating the gut–mind axis and reducing psychological stress, may serve as a valuable supportive therapy alongside Agni-focused Ayurvedic management. Further clinical studies are required to substantiate its role with scientific evidence.

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