

Review Article



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"GRAHANI (ग्राहणी): AN AYURVEDIC PERSPECTIVE WITH CONTEMPORARY CORRELATION — A COMPREHENSIVE REVIEW"

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ABSTRACT:

Background: Grahani (ग्राहणी) is one of the most important anatomical and physiological entities described in classical Ayurvedic literature. It refers to the site of Agni (digestive fire) and occupies a strategic location between the stomach (Amashaya) and the intestines (Pakwashaya). Dysfunction of Grahani, termed Grahani Roga, is a clinical syndrome characterized by erratic bowel habits, digestive impairment, and altered stool consistency — closely resembling modern disorders such as Irritable Bowel Syndrome (IBS), malabsorption syndrome, and functional diarrhea.

Objectives: To conduct a systematic, critical review of classical Ayurvedic descriptions of Grahani — its etymology, anatomical location, physiological functions, pathogenesis, clinical types, and management — and to correlate these with contemporary biomedical understanding.

Methods: Classical Ayurvedic texts including Charaka Samhita, Sushruta Samhita, Ashtanga Hridayam, Madhava Nidana, and Sharangadhara Samhita were reviewed. Relevant commentaries (Ayurveda Dipika, Sarvanga Sundara) and peer-reviewed research publications from PubMed, Google Scholar, and DHARA were also analyzed.

Results: Grahani, anatomically positioned at the duodenum and proximal small intestine, functions as the principal seat of Agni. When Agni is weakened (Agni Mandya), Grahani fails to properly hold and transform ingested food, leading to Grahani Roga. Four clinical types (Vataja, Pittaja, Kaphaja, Sannipataja) are described with specific signs and symptoms. The management is multidimensional, involving Deepana-Pachana, Grahi drugs, Shodhana therapy, and Rasayana.

Conclusion: The concept of Grahani in Ayurveda offers a comprehensive, clinically applicable framework for understanding and managing functional gastrointestinal disorders. Its correlation with IBS, malabsorption, and intestinal dysbiosis opens significant avenues for integrative medical research.

Keywords: Grahani; Grahani Roga; Irritable Bowel Syndrome; Agni; Ayurveda; Digestive disorders; Pachaka Pitta; Atisara

INTRODUCTION

The gastrointestinal tract occupies a central place in Ayurvedic medicine, as the entire concept of health, disease, and longevity pivots around the Agni — the biological fire of transformation. Among the various anatomical structures described in Ayurveda, Grahani (ग्रहणी) holds a position of singular importance. It is simultaneously an anatomical site, a physiological regulator, and a pathological entity — a tripartite conceptual depth that has no direct equivalent in conventional medicine.

The term Grahani appears extensively in the Charaka Samhita (Chikitsa Sthana 15), Sushruta Samhita (Uttara Tantra 40), and Ashtanga Hridayam (Nidana Sthana 8). Charaka describes it as: "Dhāraṇāt Grahāṇī" — that which holds or grasps, i.e., the structure that retains ingested food until it is properly digested and transformed by Agni. Its dysfunction, known as Grahani Roga, is considered one of the eight Mahagadas (major diseases) in Charaka Samhita.

Epidemiologically, functional gastrointestinal disorders (FGIDs), particularly Irritable Bowel Syndrome (IBS) and functional diarrhea, affect approximately 10–15% of the global population, with significant morbidity and impaired quality of life. Given the limitations of conventional pharmacological management, there is growing scientific interest in Ayurvedic approaches to these conditions. A comprehensive understanding of the classical concept of Grahani is therefore both academically valuable and clinically relevant.

METHODS

This review was conducted through a systematic search of primary Ayurvedic classical texts and secondary literature. The following classical texts were studied in their original Sanskrit versions with authoritative commentaries:

Charaka Samhita with Ayurveda Dipika commentary of Chakrapanidatta; Sushruta Samhita with Nibandha Sangraha of Dalhana; Ashtanga Hridayam with Sarvanga Sundara of Arunadatta and Ayurveda Rasayana of Hemadri; Madhava Nidana (Rugvinishchaya) with Madhukosha; Sharangadhara Samhita; and Bhavaprakasha Nighantu. Electronic databases including PubMed, Google Scholar, and DHARA (Digital Helpline for Ayurveda Research Articles) were searched using terms: Grahani, Grahani Roga, IBS Ayurveda, malabsorption Ayurveda, and Agni mandya. Articles published from 2000 to 2024 were included. Duplicate results were removed, and articles not pertaining to Grahani were excluded.

NIRUKTI (ETYMOLOGY AND DERIVATION)

The word Grahani is derived from the Sanskrit root "Grah" (ग्रह) meaning to seize, hold, grasp, or retain. The suffix "-ani" denotes the agent of that action. Thus, Grahani literally means 'that which holds or retains.' Charaka states:

"Dhāraṇāt Grahāṇī" (Ch.Chi.15/56)

This name is functionally significant: Grahani retains food until it is properly processed by Agni. Once digested, it releases the Sara (nutritive essence) upward and the Kitta (waste) downward. This



retentive function is contingent on the strength of Pachaka Pitta seated within it.

SHAREERA PARICHAYA (ANATOMICAL DESCRIPTION)

Location

Charaka Samhita describes the location of Grahani as situated between Amashaya (stomach/upper digestive tract) and Pakwashaya (large intestine/lower digestive tract), i.e., it occupies the junctional zone. The classical verse states:

Based on this description and its functional attributes — receiving chyme from the stomach, holding it for further digestion by Agni, and then releasing the digested material — most scholars correlate Grahani with the duodenum and proximal jejunum (the small intestine). The pyloric valve (Grahani Mukha) serves as the gatekeeper.

Physical Characteristics

Charaka describes Grahani as pitha-colored (slightly yellowish), circular (Mandala), and supported by Agni. Its structural integrity depends entirely on the vitality of Agni. When Agni is strong (Tikshna), Grahani functions efficiently. When Agni is weak (Manda), Grahani becomes impaired — a state called Grahani Dosha, which can progress into Grahani Roga if persistent.

Structural Support — Peshi (Muscular Layer)

Sushruta describes Grahani as bound by Peshi (muscular layers) and supported by Snayu (ligaments) and Sira (vessels). This description aligns with the multi-layered intestinal wall with smooth muscle, connective tissue, and vascular

network. Ashtanga Hridayam adds that Grahani is located in the Nabhipradesha (umbilical region), consistent with duodenum and proximal small intestine anatomy.

KARMA (PHYSIOLOGICAL FUNCTIONS)

The functions of Grahani are described comprehensively across classical texts and can be summarized as follows:

Table 1: Functions of Grahani as described in classical Ayurvedic texts

No.	Function (Sanskrit)	Description
1	Dharana (धारण)	Retention of ingested food (Anna) until it is digested by Agni. The pyloric sphincter function is analogous.
2	Paka (पाक)	Digestion and transformation of food. Grahani is the principal seat of Pachaka Pitta, responsible for enzymatic digestion.
3	Mochana (मोचन)	Release of properly digested food (Sara and Kitta) in proper sequence — Sara (nutrients) upward/absorbed, Kitta (waste) downward.
4	Raksha (रक्षा)	Protection from premature passage of food before proper digestion is complete.
5	Agni Dharana	Housing and sustaining the digestive fire (Jatharagni), which is essential for all metabolic processes in the body.
6	Rasa Utpatti	Formation of Ahara Rasa (primary nutritive fluid/chyle) from digested food, the foundation of the seven Dhatus.

AGNI AND GRAHANI — AN INSEPARABLE RELATIONSHIP

The concept of Agni is the cornerstone of Ayurvedic

physiology. Grahani is described as the abode of Jatharagni — the primary digestive fire that governs all other forms of Agni in the body (Dhatvagni and Bhutagni). Charaka states: "Agninā Dhāryate Grahāṇī, Grahāṇyā Dhāryate Agni" — Agni sustains Grahani, and Grahani in turn sustains Agni. This mutually sustaining relationship means that impairment of one inevitably impairs the other.

The four states of Agni — Sama (balanced), Vishama (irregular, Vata-influenced), Tikshna (sharp, Pitta-influenced), and Manda (sluggish, Kapha-influenced) — directly determine the functional efficiency of Grahani. Sama Agni maintains optimal Grahani function. Any deviation initiates the pathological process of Grahani Roga.

NIDANA (ETIOLOGY)

Ahara Nidana (Dietary Factors)

Improper dietary practices form the primary etiological factors. These include: consumption of food that is excessively heavy (Guru), oily (Snigdha), dry (Ruksha), hot (Ushna), or cold (Sheeta); irregular meal timings; eating before previous food is digested; intake of incompatible food combinations (Viruddha Ahara); overconsumption; fasting; and intake of contaminated or stale food.

Vihara Nidana (Lifestyle Factors)

Excessive physical exercise after meals, suppression of natural urges (Vegadharana), day sleep, night vigil (Ratrijagarana), excessive grief (Shoka), fear, and stress are important lifestyle-related etiological factors. These factors disturb Vata, which in turn

disrupts Agni — initiating the pathological cascade.

Purvarog Nidana (Preceding Disease)

Grahani Roga frequently arises as a sequel to improperly treated or untreated Atisara (diarrhea). The repeated purgations weaken Agni and Grahani. Charaka specifically states that Atisara that has not been treated in time, or has been treated incorrectly with excessive Sangrahi drugs, leads to Grahani Roga. Other conditions cited include fever (Jwara), wasting diseases (Shosha), and chronic indigestion (Ajirna).

SAMPRAPTI (PATHOGENESIS)

The pathogenesis of Grahani Roga follows the classical Shadkriyakala framework:

Step 1 — Sanchaya (Accumulation): Due to improper diet and lifestyle, Doshas — particularly Pitta and Vata — begin to accumulate in their respective sites.

Step 2 — Prakopa (Aggravation): Continued etiological exposure leads to vitiation of Doshas, particularly impairing Pachaka Pitta within Grahani, thereby reducing Agni.

Step 3 — Prasara (Spread): The vitiated Doshas overflow and circulate in Rasa and Rakta Dhatu via Rasavaha and Raktavaha Srotas.

Step 4 — Sthana Samshraya (Localization): The Doshas localize in the weakened Grahani. Ama (incompletely digested toxic metabolite) accumulates, coating the intestinal mucosa and further impeding digestive function.

Step 5 — Vyakti (Manifestation): Clinical features of Grahani Roga appear — alternating loose and



formed stools, borborygmi, belching, abdominal pain, and systemic symptoms.

Step 6 — Bheda (Chronicity/Complications): If untreated, complications such as Shotha (edema), Pandu (anemia), Shosha (wasting), and other Dhatukshaya (tissue depletion) features develop.

The key pathological mediator is Ama — undigested, toxic metabolic end-products formed due to impaired Agni. Ama is sticky (Picchila), heavy (Guru), foul-smelling (Puti), and obstructs Srotas (channels), impeding normal physiological flow.

GRAHANI ROGA BHEDA (CLASSIFICATION AND CLINICAL TYPES)

Grahani Roga is classified based on predominance of Dosha into four types. Charaka also describes a fifth type — Ghatiantra Grahani (resembling a water wheel, with perpetually alternating symptoms), which is often grouped under Sannipataja.

Vataja Grahani

Predominant Dosha: Vata. This is characterized by erratic, variable stool — sometimes hard, sometimes loose. The patient passes stools frequently with griping abdominal pain (Shula), borborygmi (Antarakujana), flatulence (Adhmana), and a feeling of incomplete evacuation. The stools may contain undigested food particles (Sama Mala) and may be frothy (Phenila), dark (Krishna Varna), and passed with straining. Associated features include dry mouth, body ache, weakness, and emaciation. This type shows striking similarity to Diarrhea-

predominant IBS (IBS-D) and Mixed IBS (IBS-M).

Pittaja Grahani

Predominant Dosha: Pitta. Characterized by frequent, loose, yellowish or greenish stools with a sour or fetid odor. The patient experiences burning sensation in the anus and abdomen (Daha), excessive thirst, fever, nausea, and acid regurgitation. Stools may contain bile-stained mucus (Sasneha). The clinical picture resembles bile acid malabsorption, infectious diarrhea, and Pitta-type IBS. The strong acid component of this type corresponds well with hypersecretory states.

Kaphaja Grahani

Predominant Dosha: Kapha. Presenting with heaviness after meals, nausea, excessive salivation (Praseka), white or pale stools with mucus (Shweta Sasneha Mala), loss of appetite, and sluggish digestion. The patient feels cold, lethargic, and bloated. Stools are infrequent but bulky and mucoid. This type most closely correlates with malabsorption syndrome, intestinal hypomotility, and Constipation-predominant IBS (IBS-C) with mucinous stool.

Sannipataja (Tridoshaja) Grahani

All three Doshas are simultaneously vitiated. This is the most complex and severe form, presenting with features of all three types in a variable, unpredictable pattern. Stools alternate between thin, mucoid, bloody, or undigested food-containing. Associated systemic features include severe weakness, emaciation, jaundice-like discoloration, edema, and delirium in advanced stages. Prognosis is generally guarded. This presentation mirrors severe IBS with



overlapping features, tropical sprue, or Crohn's disease in its functional aspects.

Ghatiyantara Grahani

Named after the water-wheel mechanism (Ghatika = pot; Yantra = machine), this type shows cyclical behavior — loose stools for a period followed by normal or constipated stools, perpetually alternating without resolution. The analogy of a waterwheel (continuously filling and emptying) captures the chronicity and alternating nature of this condition remarkably well.

SAMANYA LAKSHANA (COMMON CLINICAL FEATURES)

Irrespective of type, the following features are common to all forms of Grahani Roga:

Table 2: Common clinical features of Grahani Roga and their contemporary equivalents

Ayurvedic Symptom (Sanskrit)	Contemporary Equivalent
Udara Shula (उदर शूल)	Abdominal cramping and pain
Atyagni / Agnimandya (अग्निमांद्य)	Fluctuating appetite — hyperphagia or anorexia
Vibandha-Atisara (विबंध-अतिसार)	Alternating constipation and diarrhea
Adhmana (आध्मान)	Abdominal distension, bloating
Aruchi (अरुचि)	Anorexia, loss of taste
Amashoola (आमशूल)	Post-prandial abdominal pain
Trishna (तृष्णा)	Excessive thirst
Mukha Vairasya (मुखवैरस्य)	Altered taste, halitosis
Balakshaya (बलक्षय)	Fatigue, loss of physical strength
Shothaa (शोथ)	Edema (in chronic/advanced

stage)

CHIKITSA SIDDHANTA (TREATMENT PRINCIPLES)

The management of Grahani Roga follows the principle: "Treat the cause (Agni Mandya) first, then manage the manifestations." The overall treatment plan is described in three phases:

Deepana-Pachana (Kindling Agni and Digesting Ama)

The first and most crucial step is to restore Agni and digest Ama. Drugs with Deepana (appetizer) and Pachana (digestive) properties are used. Classical formulations include Chitrakadi Vati, Trikatu Churna (Shunthi, Maricha, Pippali), Hingvashtak Churna, Agni Tundi Vati, and warm water (Ushna Jala) as an adjuvant (Anupana). Fasting (Langhana) and light, warm, easily digestible diet (Laghu Ahara) are essential supportive measures.

Grahi Chikitsa (Absorbent/Binding Therapy)

Once Ama is digested, Grahi drugs are administered to regulate bowel movements and absorb excess fluid from the intestines. Important Grahi formulations include Kutajavaleha, Bilwadi Churna, Musta (Cyperus rotundus), Dhanyaka (Coriander), and Kutaja (Holarrhena antidysenterica). Kutajadi Kwatha and Gangadhar Churna are classical compound preparations. These drugs act by reducing intestinal hypermotility, absorbing excess fluid, and restoring mucosal integrity.

Shodhana Therapy (Bio-purification)

In patients with adequate strength (Bala), Shodhana



(bio-cleansing) is recommended to eliminate vitiated Doshas. Snehapana (internal oleation with medicated ghee such as Panchagavya Ghrita or Brahmi Ghrita) precedes Virechana (therapeutic purgation). In Vataja Grahani, medicated enema (Basti) — particularly Anuvasana Basti with medicated oils — is the preferred treatment. Vamana (emesis) may be indicated in Kaphaja type with excess Ama.

Rasayana and Pathya (Rejuvenation and Diet)

Following purification and primary management, Rasayana therapy is administered to restore tissue nutrition, rebuild Agni, and prevent recurrence. Classical Rasayanas used include Amalaki Rasayana, Ashwagandha (*Withania somnifera*), Shatavari (*Asparagus racemosus*), and Chyawanprash. Pathya (suitable diet) consists of old rice (Purana Shali), light soups (Yusha), pomegranate juice (Dadima), and buttermilk (Takra). Apathya (unsuitable diet/lifestyle) includes heavy, oily, cold, incompatible foods, day sleep, and emotional stress.

CONTEMPORARY CORRELATION

Grahani and Irritable Bowel Syndrome (IBS)

The clinical features of Grahani Roga — alternating bowel habits, abdominal pain, bloating, post-prandial discomfort, and the absence of structural pathology — match closely with Rome IV criteria for IBS. Both conditions involve gut-brain axis dysfunction, visceral hypersensitivity, and dysbiosis. The etiological emphasis on stress (Manas Nidana) in Grahani Roga resonates with the well-established

role of psychological factors in IBS pathophysiology.

Grahani and Malabsorption Syndrome

The nutritive deficiency (Dhatukshaya), weight loss, and fat-containing stools (Sasneha Mala) described in Kaphaja Grahani parallel features of malabsorption syndrome, including tropical sprue and celiac disease. The concept of Sara (absorbed nutrients) being inadequately extracted due to impaired Agni directly maps to villous atrophy and reduced absorptive surface area.

Grahani and the Gut Microbiome

Contemporary research increasingly highlights the gut microbiome's role in intestinal health. Ama — the toxic metabolic by-product of impaired Agni — shares conceptual similarities with dysbiotic bacterial metabolites, intestinal endotoxins, and short-chain fatty acid imbalance. Deepana-Pachana therapy, through its anti-inflammatory and probiotic-adjacent actions, may restore microbial ecology. Studies have shown that Kutaja (*Holarrhena antidysenterica*) has significant antimicrobial activity, particularly against *Entamoeba histolytica*, *Clostridium difficile*, and gram-positive bacteria.

Agni and Digestive Enzyme Function

The concept of Pachaka Pitta — the form of Pitta in Grahani responsible for digestion — is broadly analogous to the combined enzymatic milieu of the duodenum and proximal small intestine: pancreatic enzymes (lipase, amylase, protease), bile acids, and brush-border enzymes. Impaired Pachaka Pitta equates to pancreatic exocrine insufficiency, bile



acid deficiency, or reduced brush-border enzyme activity.

DISCUSSION

This review highlights the remarkable depth and clinical relevance of the Ayurvedic concept of Grahani. Far from being merely an anatomical term, Grahani represents a sophisticated physiological framework that integrates structure, function, and pathology of the gastrointestinal system into a unified model.

The centrality of Agni in the Grahani framework anticipates modern gastroenterology's emphasis on digestive enzymes, intestinal permeability, and the gut-brain axis. The four-type classification based on Dosha — with its specific symptom profiles — offers a precision-medicine approach to individualized treatment that is clinically meaningful and translatable. Emerging pharmacological evidence supports the efficacy of classical Grahani drugs: Musta demonstrates spasmolytic activity; Bilwa has anti-diarrheal and anti-inflammatory properties; Chitrak shows significant digestive stimulant activity; and Takra (buttermilk) has documented probiotic effects.

Despite these strengths, standardized clinical research in Grahani management remains limited. Most evidence is from case reports, case series, and small open-label trials. High-quality randomized controlled trials (RCTs) using validated outcome measures (e.g., IBS-SSS, Bristol Stool Scale) are urgently needed to establish the efficacy and safety of Ayurvedic interventions in this domain.

CONCLUSION

Grahani (ग्राहणी) represents one of the most clinically rich and conceptually sophisticated constructs in Ayurvedic medicine. Its description as the seat of Agni, its role in digestion and nutrient absorption, and the detailed classification and management of Grahani Roga collectively form a comprehensive gastrointestinal medicine framework. The striking parallels with IBS, malabsorption syndrome, and intestinal dysbiosis suggest that Grahani offers a historically grounded yet scientifically relevant model for understanding and treating functional digestive disorders. Future research should focus on RCTs of classical Grahani formulations, mechanistic studies on their bioactive constituents, and microbiome-focused investigations that can bridge Ayurvedic and biomedical paradigms.

CONFLICT OF INTEREST

The authors declare no conflict of interest.

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ETHICAL STATEMENT

This is a review article based on published classical texts and peer-reviewed literature. No human subjects or animals were involved. IRB approval is not applicable.

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