

PANCHAKOLA SIDDHA PEYA IN THE MANAGEMENT OF GRAHANI ROGA: A CRITICAL REVIEW BASED ON CLASSICAL AYURVEDIC LITERATURE AND CONTEMPORARY SCIENTIFIC EVIDENCE

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ABSTRACT

Background Grahani Roga is one of the most extensively described gastrointestinal disorders in Ayurveda and is primarily caused by the impairment of Agni, the fundamental principle governing digestion, metabolism, and tissue nourishment. Grahani, regarded as the principal seat of Agni, performs the vital function of retaining ingested food until complete digestion is achieved. Disturbance of Agni leads to the formation of Ama, resulting in defective digestion, improper assimilation of nutrients, vitiation of Doshas, and ultimately the manifestation of Grahani Roga. Ayurvedic classics consistently emphasize that restoration of Agni through appropriate Ahara and Aushadha forms the cornerstone of successful management.

Objective To critically review the classical Ayurvedic literature on Grahani Roga and to evaluate the therapeutic significance of Panchakola Siddha Peya as a dietary intervention based on classical principles and contemporary scientific evidence regarding its constituent drugs.

Materials and Methods A comprehensive literature review was carried out using classical Ayurvedic texts, including Charaka Samhita, Sushruta Samhita, Ashtanga Hridaya, Ashtanga Sangraha, Madhava Nidana, Chakradatta, Yogaratnakara, Bhaishajya Ratnavali, and Bhavaprakasha Nighantu. Contemporary scientific literature was retrieved from PubMed, Scopus, Google Scholar, AYUSH Research Portal, and other indexed databases using keywords such as Grahani, Panchakola, Deepana, Pachana, Agni, and Ayurvedic dietetics. Relevant experimental and pharmacological studies related to the constituent drugs of Panchakola Siddha Peya were critically reviewed.

Results Classical literature consistently identifies Agnimandya as the primary etiological factor responsible for Grahani Roga. Panchakola Siddha Peya, described in multiple Ayurvedic treatises, possesses potent Deepana, Pachana, Anulomana, Vatanulomana, and Ama-pachana properties. The five constituent drugs—Pippali, Pippalimoola, Chitraka, Chavya, and Shunthi—collectively stimulate digestive fire, facilitate digestion of Ama, improve gastrointestinal function, and restore the physiological integrity of Grahani. Contemporary pharmacological studies demonstrate digestive stimulant, antioxidant, anti-inflammatory, antimicrobial, gastroprotective, and immunomodulatory properties of these ingredients, thereby supporting several classical therapeutic claims.

Conclusion Panchakola Siddha Peya represents a scientifically rational and therapeutically significant dietary formulation described in Ayurveda for the management of Grahani Roga. Its multifaceted actions on Agni, Ama, and Grahani support its continued relevance in contemporary Ayurvedic clinical practice. However, further well-designed experimental and clinical studies are warranted to strengthen the existing evidence base.

Keywords: Grahani, Agni, Ama, Panchakola Siddha Peya, Deepana, Pachana, Ayurveda, Pathya Ahara

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1. INTRODUCTION

Ayurveda considers **Agni** as the fundamental determinant of life, health, strength, complexion, immunity, longevity, and vitality. Acharya Charaka has unequivocally stated that maintenance of normal Agni is indispensable for sustaining

physiological homeostasis, whereas impairment of Agni initiates the pathogenesis of numerous diseases (1). Agni performs the essential functions of digestion, absorption, transformation, assimilation, and metabolism of food into nutrients required for tissue nourishment. Consequently,

disturbances in Agni affect every level of metabolism, leading to the accumulation of incompletely digested metabolic products known as **Ama**, which acts as the principal pathogenic factor in several disorders (1,2).

Among the organs involved in digestion, **Grahani** occupies a unique position in Ayurvedic physiology. Classical texts describe Grahani as the principal seat (*Adhithana*) of Agni, responsible for retaining ingested food until complete digestion occurs before releasing it into the subsequent part of the gastrointestinal tract (1,3). The physiological integrity of Grahani depends entirely upon the normal functioning of Agni; therefore, any diminution in digestive power directly impairs Grahani, resulting in defective digestion, abnormal metabolism, malabsorption, irregular bowel evacuation, generalized weakness, and progressive deterioration of health (2). Acharya Charaka has emphasized that **Agnimandya is the foremost cause of Grahani Roga**, stating that weakened digestive fire fails to digest food adequately, leading to Ama formation, Dosha vitiation, and dysfunction of Grahani (1). Similarly, Acharya Vagbhata described Grahani as a disease originating from prolonged impairment of digestive fire, wherein improperly processed food undergoes fermentation, resulting in various gastrointestinal manifestations (3). Madhavakara further elaborated the Nidana, Purvarupa, Rupa, and Samprapti of Grahani, emphasizing its chronic nature and close association with dietary indiscretions and improper lifestyle practices (4).

Ayurvedic literature attributes the development of Grahani primarily to **Mithya Ahara-Vihara**, including excessive intake of Guru (heavy), Snigdha (unctuous), Viruddha (incompatible), Adhyashana (overeating), Vishamashana (irregular eating), and Ajirashana (eating before previous food is digested), together with suppression of natural urges, psychological stress, sedentary habits, and inappropriate therapeutic procedures (1,3,4). These factors collectively impair Agni, leading to Ama production and vitiation of Doshas, ultimately manifesting as Grahani Roga. The concept of **Ahara** occupies a central position in Ayurvedic therapeutics. Charaka has categorically stated that wholesome diet alone is capable of maintaining health, whereas inappropriate dietary practices constitute the root cause of disease (1). In the management of Grahani, classical physicians consistently emphasized that medicines alone cannot restore digestive function unless accompanied by suitable dietary regulation. Therefore, various therapeutic dietary preparations (*Pathya Kalpana*) have been described to rekindle Agni, digest Ama, and gradually restore digestive strength. Among these dietary formulations, **Panchakola Siddha Peya** occupies a distinguished place owing to its unique combination of nutritional support and medicinal efficacy. Panchakola Siddha Peya is prepared by processing rice gruel with the five classical Deepana-Pachana drugs collectively known as Panchakola—**Pippali** (*Piper longum* Linn.), **Pippalimoola** (root of *Piper longum* Linn.), **Chitraka** (*Plumbago zeylanica* Linn.), **Chavya** (*Piper retrofractum* Vahl.), and **Shunthi** (*Zingiber officinale* Roscoe) (5–8). These drugs are renowned in Ayurvedic literature for their capacity to stimulate digestive fire, digest Ama, improve appetite, alleviate abdominal discomfort, regulate bowel function, and facilitate normal digestion.

Each constituent drug of Panchakola possesses distinct pharmacodynamic attributes. Chitraka is considered one of the most potent Deepana drugs and is widely indicated in disorders arising from Agnimandya. Pippali enhances Agni while simultaneously acting as a Rasayana, thereby improving digestive efficiency without causing excessive depletion. Pippalimoola exhibits Vata-Kapha Shamaka properties and supports proper gastrointestinal motility. Chavya alleviates Ama and Kapha while promoting normal digestion, whereas Shunthi possesses Deepana, Pachana, Anulomana, and Shoolahara properties that contribute significantly to restoration of gastrointestinal function (6–9).

In addition to classical descriptions, recent phytochemical and pharmacological investigations have demonstrated that the constituent herbs of Panchakola contain several biologically active compounds, including piperine, plumbagin, gingerols, shogaols, volatile oils, flavonoids, and phenolic compounds. Experimental studies have reported digestive stimulant, antioxidant, antimicrobial, anti-inflammatory, gastroprotective, hepatoprotective, and immunomodulatory activities, thereby providing scientific support to many classical therapeutic indications (10–15).

Although Panchakola Siddha Peya has been prescribed in Ayurvedic classics for centuries, comprehensive reviews critically integrating classical textual evidence with available scientific literature remain limited. Most published literature primarily focuses on the pharmacological properties of individual ingredients rather than evaluating Panchakola Siddha Peya as a therapeutic dietary formulation. Furthermore, a consolidated review emphasizing its classical indications, pharmacodynamic rationale, and evidence-based therapeutic potential in Grahani Roga is presently lacking.

Therefore, the present review aims to critically analyze the classical Ayurvedic description of Grahani Roga, evaluate the therapeutic rationale of Panchakola Siddha Peya based on Ayurvedic principles, summarize available scientific evidence regarding its constituent drugs, and identify future directions for research and clinical application.

2. Materials and Methods

This review was conducted using a comprehensive literature search strategy focusing primarily on classical Ayurvedic literature and supported by contemporary scientific evidence concerning the constituent drugs of Panchakola Siddha Peya.

Primary classical references were obtained from **Charaka Samhita**, **Sushruta Samhita**, **Ashtanga Hridaya**, **Ashtanga Sangraha**, **Madhava Nidana**, **Chakradatta**, **Yogarajnakara**, **Bhaishajya Ratnavali**, and **Bhavaprakasha Nighantu**. Relevant chapters dealing with Grahani Roga, Agni, Ama, Deepana, Pachana, Pathya Kalpana, and Panchakola were critically reviewed.

Electronic databases including **PubMed**, **Scopus**, **Google Scholar**, **AYUSH Research Portal**, and **DHARA** were searched for English-language publications up to 2025 using combinations of the keywords "Grahani", "Panchakola", "Panchakola Siddha Peya", "Deepana", "Pachana", "Agni", "Ayurvedic dietetics", "Plumbago zeylanica", "Piper longum", and "Zingiber officinale". Original research articles, review articles, pharmacological studies, and book chapters published in indexed journals were screened. Duplicates, conference

abstracts, editorials, and non-peer-reviewed literature were excluded. Information extracted from the selected literature was synthesized under thematic headings to critically evaluate the classical therapeutic rationale and contemporary scientific evidence supporting Panchakola Siddha Peya in the management of Grahani Roga.

3. Results

3.1 Concept of Grahani in Ayurveda

Nirukti (Etymology)

The term **Grahani** is derived from the Sanskrit root "*Graha*" (ग्रह), meaning "to hold," "retain," or "support." Accordingly, Grahani is the organ that retains ingested food until it is completely digested by **Jatharagni**, after which it releases the digested food (*Pakva Ahara*) into the lower gastrointestinal tract. This retaining function distinguishes Grahani as one of the most important organs involved in digestion and metabolism.

Acharya Charaka has described Grahani as the **Adhithana (seat) of Agni**, emphasizing that its normal physiological function depends entirely upon the integrity of digestive fire (1).

"ग्रहण्यधिष्ठाना..."

(Charaka Samhita, Chikitsa Sthana 15) (1)

Similarly, Acharya Vagbhata states that Grahani derives its strength from Agni and loses its functional capacity whenever Agni becomes impaired (3).

Thus, Grahani should not merely be regarded as an anatomical organ but rather as a functional entity responsible for the digestion, transformation, assimilation, and onward transportation of food.

3.2 Physiological Importance of Grahani

Ayurvedic classics unanimously consider Grahani to be indispensable for maintaining health because it performs the following physiological functions:

- Retention of ingested food until proper digestion
- Maintenance of Jatharagni
- Digestion of Ahara
- Separation of Sara (essence) and Kitta (waste)
- Nourishment of successive Dhatus
- Regulation of bowel evacuation
- Prevention of Ama formation

Charaka clearly states that proper nourishment of all Dhatus depends upon efficient digestion occurring at the level of Grahani (1). Consequently, impairment of Grahani affects not only digestion but also tissue nutrition, strength (Bala), complexion (Varna), enthusiasm (Utsaha), and immunity (Ojas).

Acharya Sushruta also emphasizes that Agni governs transformation of food into nutrient essence and therefore preservation of Agni is synonymous with preservation of life (2).

3.3 Agni–Grahani Relationship

The concept of **Agni** forms the foundation of Grahani Chikitsa. According to Ayurveda, Agni is responsible for all metabolic activities occurring within the body.

Charaka states:

"आयुर्वर्णो बलं स्वास्थ्यं उत्साहोपचयप्रभाः।
अग्निर्देहस्य मूलं हि..."

(Charaka Samhita, Chikitsa Sthana 15) (1)

This verse signifies that lifespan, complexion, strength, health, enthusiasm, tissue nourishment, and vitality all depend upon the proper functioning of Agni.

Because Grahani serves as the seat of Agni, any diminution of digestive fire directly affects Grahani. Conversely, restoration of Agni automatically restores Grahani.

Ayurvedic classics describe four physiological states of Agni:

Type of Agni	Dominant Dosha	Characteristics
Samagni	Balanced Doshas	Proper digestion and metabolism
Mandagni	Kapha	Slow digestion and Ama formation
Tikshnagni	Pitta	Excessively rapid digestion
Vishamagni	Vata	Irregular digestion

Among these, **Mandagni** is regarded as the principal etiological factor responsible for Grahani Roga.

3.4 Grahani Roga

Acharya Charaka has described Grahani Roga as a chronic disorder resulting from persistent impairment of Agni.

When improperly digested food remains within Grahani, fermentation and Ama formation occur, resulting in Dosha vitiation and gradual impairment of digestive function.

The disease primarily affects individuals who repeatedly indulge in incompatible dietary habits despite suffering from indigestion.

Unlike acute digestive disturbances, Grahani develops gradually through continuous weakening of Agni.

3.5 Nidana (Etiological Factors)

Ayurvedic classics describe numerous causative factors responsible for Grahani Roga.

The most important among them are:

Dietary Factors (Aharaja Nidana)

- Adhyashana (overeating)
- Vishamashana (irregular meals)
- Ajirnashana (eating before previous meal is digested)
- Guru Ahara
- Ati Snigdha Ahara
- Ati Ruksha Ahara
- Viruddha Ahara
- Ati Sheeta Ahara
- Excessive intake of fermented food
- Excessive intake of dry food

Charaka repeatedly emphasizes that inappropriate dietary habits are the foremost cause of Agnimandya (1).

Lifestyle Factors (Viharaja Nidana)

- Diwaswapa
- Ratrijagarana
- Suppression of natural urges
- Sedentary lifestyle
- Excessive physical exertion
- Improper Panchakarma
- Excessive fasting
- Psychological stress
- Anxiety
- Fear
- Grief

These factors disturb Doshic equilibrium and weaken digestive capacity.

Disease-related Factors

Several chronic disorders may further weaken Agni and predispose an individual to Grahani.

Classical texts also describe Grahani developing following improperly managed Atisara.

Acharya Charaka clearly states that untreated or improperly treated Atisara ultimately progresses into Grahani due to persistent Agnimandya (1).

Table 1. Nidana of Grahani Roga According to Classical Texts

Classical Text	Important Nidana
Charaka Samhita	Agnimandya, Adhyashana, Ajirnashana, Viruddhahara, Mithya Ahara-Vihara
Sushruta Samhita	Agni Dushti, incompatible diet, improper lifestyle
Ashtanga Hridaya	Mandagni, Kapha aggravation, irregular food habits
Madhava Nidana	Chronic indigestion, dietary indiscretions, Atisara
Chakradatta	Ama, Mandagni, faulty dietary regimen
Yogaratanakara	Kapha predominance with weakened Agni
Bhaishajya Ratnavali	Improper Ahara causing persistent Agnimandya

3.6 Purvarupa (Premonitory Symptoms)

Ayurvedic texts describe several premonitory symptoms before the disease becomes fully manifested.

These include:

- Aruchi
- Arochaka
- Alasya
- Gaurava
- Avipaka
- Trishna
- Udaragaurava
- Agnimandya
- Klama

Recognition of Purvarupa is important because early intervention at this stage prevents progression into chronic Grahani.

3.7 Rupa (Clinical Features)

Charaka and Madhavakara have described numerous characteristic manifestations of Grahani.

Major symptoms include

- Muhurbaddha Muhur Drava Mala
- Avipaka
- Aruchi
- Udarashoola
- Atopa
- Agnimandya
- Chhardi

- Hrullasa
- Trishna
- Gaurava
- Daurbalya
- Kshut Mandya
- Alasya

These symptoms collectively reflect impairment of digestion, assimilation, and metabolism.

Table 2. Major Clinical Features of Grahani Roga

Sanskrit Term	Clinical Description
Agnimandya	Reduced digestive power
Aruchi	Loss of appetite
Avipaka	Indigestion
Atopa	Abdominal distension
Udarashoola	Abdominal pain
Gaurava	Heaviness
Alasya	Lethargy
Muhurbaddha Drava Mala	Muhur Irregular bowel evacuation
Trishna	Excessive thirst
Hrullasa	Nausea
Chhardi	Vomiting
Daurbalya	General weakness

3.8 Samprapti (Pathogenesis)

The Samprapti of Grahani revolves around the central role of Agni.

The sequence of events may be summarized as follows:

Mithya Ahara-Vihara

↓

Dosha Prakopa (Predominantly Kapha and Vata)

↓

Jatharagni Mandya

↓

Incomplete Digestion of Food

↓

Ama Formation

↓

Obstruction of Srotas

↓

Further Agni Depression

↓

Impairment of Grahani

↓

Defective Digestion and Assimilation

↓

Manifestation of Grahani Roga

Charaka emphasizes that Ama not only results from Agnimandya but also further suppresses Agni, thereby establishing a vicious cycle that perpetuates the disease (1).

3.9 Chikitsa Siddhanta of Grahani

The fundamental principle of treatment is **restoration of Agni**.

All classical texts consistently recommend:

- Langhana
- Pachana
- Deepana
- Pathya Ahara
- Grahi Dravyas
- Dosha-specific management
- Rasayana after restoration of Agni

Among these measures, **Ahara Chikitsa** occupies a pivotal role because medicines alone cannot restore digestion unless supported by appropriate dietary regulation.

Therefore, therapeutic dietary preparations such as **Peya**, **Vilepi**, **Yavagu**, and **Panchakola Siddha Peya** have been specifically recommended during different stages of Grahani management.

3.10 Panchakola Siddha Peya: Classical Description and Therapeutic Significance

Diet (*Ahara*) occupies a central position in Ayurvedic therapeutics and is regarded as the foremost factor responsible for the maintenance of health as well as the management of diseases. Acharya Charaka has repeatedly emphasized that no medicine can produce optimum therapeutic benefit in the absence of appropriate dietary regulation. Therefore, in diseases arising from **Agnimandya**, the administration of **Pathya Ahara** possessing Deepana and Pachana properties has been accorded equal importance to medicinal therapy (1).

Among the numerous dietary formulations described in Ayurvedic classics, **Panchakola Siddha Peya** is considered one of the most effective preparations indicated in conditions associated with diminished digestive fire. It is a medicated rice

gruel prepared by cooking rice with the decoction of the five drugs collectively known as **Panchakola**, namely **Pippali** (*Piper longum* Linn.), **Pippalimoola** (*Piper longum* Linn. Root), **Chitraka** (*Plumbago zeylanica* Linn.), **Chavya** (*Piper retrofractum* Vahl.) and **Shunthi** (*Zingiber officinale* Roscoe).

This preparation possesses the dual advantage of being **Laghu** (light to digest) while simultaneously exhibiting potent **Deepana**, **Pachana**, **Grahi**, **Vatanulomana** and **Amapachana** properties. Consequently, Panchakola Siddha Peya has been advocated in various classical texts for restoration of digestive strength following prolonged Agnimandya.

3.11 Classical References of Panchakola Siddha Peya

The formulation has been described in several Ayurvedic treatises under different contexts including Grahani, Atisara, Ajeerna, Agnimandya and post-Shodhana dietary regimens.

Acharya Charaka recommends **Peya prepared with Deepana drugs** during the stage of impaired digestion to rekindle digestive fire and facilitate proper digestion (1).

Acharya Vagbhata also advocates administration of medicated Peya following Langhana and Deepana therapy for patients suffering from Grahani and Agnimandya (3).

Chakradatta and Bhaishajya Ratnavali specifically recommend Panchakola preparations for diseases caused by Ama and impaired digestive power (5,6).

Yogaratanakara further emphasizes that Panchakola preparations stimulate appetite, digest accumulated Ama and normalize bowel function (7).

Thus, despite slight variations in indications among different texts, the therapeutic objective remains identical—**restoration of Agni**.

Table 3. Classical References of Panchakola in Ayurvedic Literature

Classical Text	Context of Description	Therapeutic Indication
Charaka Samhita	Grahani Chikitsa	Deepana, Pathya Ahara
Ashtanga Hridaya	Grahani & Agnimandya	Peya after Langhana
Ashtanga Sangraha	Grahani	Digestive restoration
Chakradatta	Grahani Chikitsa	Ama Pachana
Yogaratanakara	Agnimandya	Deepana-Pachana
Bhaishajya Ratnavali	Grahani	Pathya Kalpana

3.12 Composition of Panchakola Siddha Peya

The term **Panchakola** literally signifies "the group of five pungent drugs."

Each ingredient contributes distinct pharmacodynamic properties while collectively producing synergistic therapeutic action.

Table 4. Ingredients of Panchakola Siddha Peya

Sanskrit Name	Botanical Name	Part Used
Pippali	<i>Piper longum</i> Linn.	Fruit
Pippalimoola	<i>Piper longum</i> Linn.	Root
Chitraka	<i>Plumbago zeylanica</i> Linn.	Root
Chavya	<i>Piper retrofractum</i> Vahl.	Stem/Fruit
Shunthi	<i>Zingiber officinale</i> Roscoe	Rhizome

3.13 Ayurvedic Pharmacodynamics (Rasa Panchaka)

The therapeutic efficacy of Panchakola Siddha Peya can be explained on the basis of the Ayurvedic principles of **Rasa**, **Guna**, **Virya**, **Vipaka** and **Karma**.

Table 5. Ayurvedic Pharmacodynamic Profile of Panchakola Ingredients

Drug	Rasa	Guna	Virya	Vipaka	Principal Karma
Pippali	Katu	Laghu, Snigdha	Anushna-Ushna	Madhura	Deepana, Pachana, Rasayana
Pippalimoola	Katu	Laghu, Tikshna	Ushna	Katu	Vatanulomana, Deepana
Chitraka	Katu	Laghu, Tikshna	Ushna	Katu	Deepana, Pachana, Grahi
Chavya	Katu	Laghu, Ruksha	Ushna	Katu	Ama Pachana, Kapha-Vatahara
Shunthi	Katu	Laghu, Snigdha	Ushna	Madhura	Deepana, Pachana, Shoolahara

It is evident that all five ingredients possess **predominantly Katu Rasa, Laghu Guna and Ushna Virya**, rendering the

formulation particularly suitable for correcting **Kapha-induced Agnimandya**, digesting Ama and restoring digestive activity.

3.14 Therapeutic Rationale of Panchakola Siddha Peya

The pharmacological rationale of Panchakola Siddha Peya is based upon the concept of **Samprapti Vighatana**.

Since Agnimandya represents the initiating event in Grahani Roga, restoration of digestive fire becomes the primary therapeutic objective.

The formulation acts through multiple mechanisms:

Deepana

Enhances digestive fire without producing excessive irritation.

Pachana

Facilitates digestion of accumulated Ama.

Grahi

Improves intestinal absorption and promotes formation of well-digested stool.

Vatanulomana

Normalizes the movement of Apana Vata.

Kapha Shamana

Removes excessive Kapha responsible for Mandagni.

Srotoshodhana

Facilitates unobstructed functioning of digestive channels.

Collectively these actions restore the physiological integrity of Grahani.

3.15 Individual Therapeutic Contribution of Panchakola Drugs

Pippali (Piper longum Linn.)

Pippali occupies an important place among Deepana and Rasayana drugs.

Charaka has included Pippali in **Deepaneeya Mahakashaya**, emphasizing its capacity to kindle digestive fire (1).

Besides Deepana and Pachana, Pippali also improves appetite, enhances nutrient assimilation and strengthens Agni gradually.

Recent phytochemical studies demonstrate that **piperine** enhances digestive enzyme secretion, increases bioavailability of nutrients and exhibits antioxidant and immunomodulatory activity (10,11).

Pippalimoola

Although derived from the same plant, Pippalimoola possesses comparatively stronger **Vatanulomana** activity.

It reduces abdominal discomfort, facilitates normal bowel movement and supports correction of disturbed digestive physiology.

The root contains alkaloids similar to piperine and exhibits digestive stimulant activity.

Chitraka (Plumbago zeylanica Linn.)

Among Deepana drugs described in Ayurveda, Chitraka is considered one of the most potent.

Charaka includes Chitraka in **Deepaneeya Mahakashaya**, while Bhavaprakasha attributes Deepana, Pachana and Grahi properties to the drug (1,8).

The principal phytochemical constituent **plumbagin** exhibits antioxidant, antimicrobial, digestive stimulant and anti-inflammatory activities according to experimental studies (12,13).

Because of its Tikshna and Ushna properties, Chitraka rapidly removes Kapha-induced obstruction responsible for diminished digestive power.

Chavya (Piper retrofractum Vahl.)

Chavya possesses Katu Rasa, Ushna Virya and Laghu Guna.

Classical texts recommend Chavya in disorders characterized by Ama, Kapha predominance and impaired digestion.

Experimental studies have demonstrated antimicrobial, antioxidant and gastroprotective properties of its volatile constituents (14).

Shunthi (Zingiber officinale Roscoe)

Shunthi is one of the most extensively used digestive drugs in Ayurveda.

Its principal actions include

- Deepana
- Pachana
- Anulomana
- Shoolahara
- Vata-Kapha Shamana

Gingerols and shogaols present in Shunthi stimulate gastric secretion, improve digestive function and exhibit significant antioxidant and anti-inflammatory activities (15,16).

3.16 Synergistic Action of Panchakola Siddha Peya

The therapeutic superiority of Panchakola Siddha Peya does not merely arise from the actions of individual drugs but from their **synergistic pharmacodynamic interaction**.

All ingredients collectively perform the following actions:

- Rekindle Jatharagni
- Digest Ama
- Improve appetite
- Facilitate proper digestion
- Normalize bowel function
- Enhance nutrient assimilation
- Reduce abdominal discomfort

- Improve physiological functioning of Grahani
- Restore digestive strength gradually

Furthermore, preparation in the form of **Peya** provides an easily digestible nutritional base, minimizing the digestive burden while simultaneously delivering medicinal phytoconstituents.

Thus, Panchakola Siddha Peya represents a unique example of **Ahara and Aushadha integration**, where food itself serves as a therapeutic intervention.

4. Discussion

Grahani Roga occupies a distinctive position among the disorders of the Annavaha Srotas because its pathogenesis revolves around impairment of **Jatharagni**, which is regarded as the foundation of digestion, metabolism, tissue nourishment, strength and longevity. Classical Ayurvedic literature consistently emphasizes that Agni is not merely responsible for digestion of food but also governs all metabolic transformations occurring within the body. Consequently, deterioration of Agni initiates a cascade of pathological events culminating in Ama formation, Dosha vitiation, Srotorodha and impairment of Grahani. Restoration of Agni therefore remains the foremost therapeutic objective in the management of Grahani Roga.

The present review highlights that all major Ayurvedic treatises unanimously identify **Mandagni** as the principal etiological factor responsible for Grahani. Although Charaka Samhita, Sushruta Samhita, Ashtanga Hridaya, Madhava Nidana, Chakradatta and Bhaishajya Ratnavali differ slightly in their descriptions of symptomatology and therapeutic approaches, they consistently advocate Deepana, Pachana and Pathya Ahara as the primary interventions for restoration of digestive function.

Among the numerous dietary formulations described in Ayurveda, **Panchakola Siddha Peya** represents an ideal example of therapeutic nutrition (*Pathya Kalpana*). Unlike conventional medicinal formulations, Panchakola Siddha Peya combines the nutritional value of rice gruel with the pharmacological actions of Panchakola, thereby simultaneously addressing nourishment and correction of Agnimandya. This dual role reflects the Ayurvedic principle that Ahara itself may serve as an effective therapeutic intervention when appropriately selected and administered.

Analysis of the Ayurvedic pharmacodynamics of Panchakola demonstrates remarkable uniformity among its constituent drugs. Chitraka, Pippali, Pippalimoola, Chavya and Shunthi predominantly possess **Katu Rasa, Laghu Guna, Ushna Virya and Deepana–Pachana Karma**, making the formulation especially suitable for disorders characterized by Kapha dominance, Ama accumulation and diminished digestive power. Their collective actions facilitate digestion of improperly processed food, remove metabolic obstruction, normalize the movement of Vata and gradually restore the physiological functions of Grahani.

Experimental pharmacological studies conducted on individual ingredients provide additional support to the classical indications of Panchakola. Piperine, plumbagin, gingerols and other phytoconstituents have demonstrated

digestive stimulant, antioxidant, antimicrobial, anti-inflammatory and gastroprotective activities in experimental models. Although these findings cannot be considered direct evidence for the efficacy of Panchakola Siddha Peya as a complete formulation, they nevertheless strengthen the biological plausibility of its traditional use.

A notable observation emerging from this review is the scarcity of clinical studies evaluating Panchakola Siddha Peya itself. Existing literature primarily investigates isolated constituent drugs rather than the complete dietary formulation. Considering that Ayurvedic formulations derive their therapeutic efficacy from synergistic interaction among ingredients and specific methods of pharmaceutical preparation, evaluation of individual herbs alone cannot adequately explain the overall therapeutic potential of Panchakola Siddha Peya. Future research should therefore prioritize comprehensive evaluation of the formulation in accordance with Ayurvedic principles.

Another important aspect highlighted by this review is the significance of **Pathya Ahara** in Grahani Chikitsa. Classical physicians repeatedly emphasize that successful treatment of Grahani depends not only upon medicinal administration but also upon strict adherence to appropriate dietary practices. Panchakola Siddha Peya exemplifies this principle by integrating dietary nourishment with medicinal action. Such an approach remains highly relevant in contemporary Ayurvedic practice and deserves greater attention in both clinical application and research.

5. Future Research Directions

Although Panchakola Siddha Peya has been described in Ayurvedic classics for centuries, several areas require systematic scientific exploration.

Future studies should focus on:

- Standardization of pharmaceutical preparation methods according to classical guidelines.
- Pharmacognostic and phytochemical evaluation of raw materials.
- Physicochemical standardization of Panchakola Siddha Peya.
- Development of quality-control parameters for routine clinical use.
- Experimental evaluation of Deepana and Pachana activities using validated models.
- Comparative clinical studies with other classical Pathya Kalpanas described for Grahani.
- Documentation of long-term safety following repeated administration.
- Development of standard treatment protocols integrating Ahara and Aushadha.

Such investigations will strengthen the scientific evidence supporting the traditional use of Panchakola Siddha Peya while preserving its classical Ayurvedic identity.

6. Conclusion

Grahani Roga represents one of the most important disorders described in Ayurveda in which impairment of Agni forms the central pathogenic event. Restoration of digestive fire through appropriate dietary and medicinal interventions therefore constitutes the cornerstone of management. Panchakola Siddha Peya exemplifies the Ayurvedic concept of therapeutic nutrition by combining easily digestible nourishment with potent Deepana, Pachana, Grahi and Amapachana properties.

Critical analysis of classical literature demonstrates that Panchakola Siddha Peya has been consistently recommended by several authoritative Ayurvedic texts for restoration of Agni and correction of Grahani dysfunction. Contemporary pharmacological investigations on its constituent herbs further support many of these classical therapeutic claims through demonstration of digestive stimulant, antioxidant, antimicrobial and gastroprotective activities.

The formulation therefore continues to hold significant therapeutic value in Ayurvedic clinical practice. Nevertheless, further multidisciplinary research involving pharmaceutical standardization, pharmacological evaluation and well-designed clinical studies conducted within the framework of Ayurvedic principles is essential to strengthen the existing evidence base and facilitate wider scientific acceptance of this classical dietary formulation.

Limitations of the Review

- The review is primarily based on classical Ayurvedic literature and published scientific evidence available in indexed databases.
- Direct clinical studies evaluating Panchakola Siddha Peya remain limited.
- Variations in pharmaceutical preparation described in different classical texts were not compared separately.
- Differences among commentaries of classical texts were beyond the scope of this review.

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