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Review of Ayurvedic Literatures over Etiology and Symptomatology of Pittajaa Grahani W.S.R to IBS-D

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Abstract

Now a days lacking in diagnosis of disease is a great problem towards accuracy in management of the ailment. Diagnosis based on proper observation and analysis over the incidence but unfortunately darshan (inspection), sparshan (palpation/percussion), prashna (interrogation) becoming very neglected to the physicians during the diagnosis. Ayurveda has gone through several diagnostic measures like dashvidha pariksha (10 fold examination), asthavidha priksa (8 fold examination), shadanga pariksha (6 fold examination) etc. To maintain the accuracy of diagnosis of Grahani roga which is more or less similar to the ailment IBS of modern allopathic medicine is becoming a hazardous problem in relation to public health and personal health all over the globe. The varieties of grahani roga have been mentioned by our ancestors in a classical manner where types of discomfort associated symptoms and pathogenic pathway have been categorically explained. Pittaja grahani is a type of alimentary rather diarrheal diseases which is carrying a lot of symptomatic similarities with other disease and needs to be differentiated from them. In present article those signs symptoms have been collected, etiology have been assessed, samprapti or pathogenic pathways have been analyzed to justify the claim of ancestors regarding diagnosis. As proper diagnosis is mandatory for real treatment so the aims and objectives of present work to categorize those lakshan vimarsha (symptomatic dilemma) in a methodical manner towards proper diagnosis of Pittajaa grahani through a view of differential diagnosis and establish (IBS-D) from other concomitant problems.

Keywords: Grahani, pittaja grahani, grahaniroga, agni, IBS-D

Introduction

The science of life from primitive era to modern time is consider in different way, art of healing is the primary aim of medical science is to combat the illness of suffering humanity. Now a days diarrheal diseases or digestive diseases are very much troublesome hazard and those are liable for production of several disorders including metabolic dysfunction. In the ancient ayurvedic life science i.e. Ayurveda has given maximum importance to the agni (digestive and metabolic enzymes) which needs to make preserve for a healthy wellbeing. Samadosha (equality in doshas or 3 humours i.e. vata, pitta, kapha), samadhatus (homeostasis of dhatu or bodily tissues like rasa, rakta, mamsa, meda, asthi, majja, shukra), malakriya (proper drainage of malas or excreta) like mutra (urine), purisha (feces), sweda (sweat) etc. are the prime factors toward keeping healthy of an individual. Beside those factors pachak agni (digestive juice), dhatu agni (metabolic fire) are the very much important factors which are playing the great role towards keeping equilibrium of doshas, restoration of dhatus and purification of malas.

Grahani is such a term explained by the ancestors in different way where the part of digestive tube from pyloric end of

stomach to the 2nd part of duodenum or somewhere mentioned whole small intestine itself. Some has stated only duodenum as Grahani. In review of literatures it has also been revealed that the state of improper functioning of grahani is grahani doshas where agnibala (the strength of digestive fire) is dearranged in (vishamagni, mandagni and teekshagni) state. Grahani roga has been categorized-vataja grhanai, pittajaa grahani, kaphaja grahani, sannipataja grahani on doshik predominance along with some other diseases based on clinical symptomatology namely samgrahi grahani, ghatyantra grahani, nirmok grahani, raj grahani etc. In present study pittajaa grahani has been discussed with some special features like passage of loose stool with undigested food materials having bluish and yellowish colour, yellowish completion of patient, foul smelling in eructation, thirst, anorexia, burning sensation around cardiac & throat region. In the modern era by the name of civilization we are becoming closely adherent to the unhealthy as well as improper life style stress and strain are the usual part of our daily life. Fast food, junk food, fatty food, oily food are becoming the usual part of our food habit such improper and unwholesome dietary arrangement and habits are destroying

or making derangement of agni. Haphazard use of antacids, PPI, H2 receptor blocking agents etc. are rearranging acid-pepsin mixtures and gradually making acholorohydria, hypocholorohydria or hyperchlorohydria of the patients.

Peptic ulcer syndrome (PUS), GERD, IBS-C, IBS-D, ulcerative colitis, extra hepatic amoebiasis, helmenthiasis, etc are the common ailment of alimentary system which leads to pain and suffering. In modern science IBS has been defined as improper evacuation of bowel along with the pain abdomen, flatulence, nausea etc. Now 20% of people all over the globe are facing the problem of IBS and different school of modern medicine has categorized the IBS as per their symptoms like IBS-C IBS-D IBS-M IBS-U. Grading of IBS has been also be done through the severity and intensity given in the chart.

Pittaja grahani denotes the state where the pitta is vitiated with more sara and dravaguna (liquidity of pitta becomes more than usual) qualitatively vitiated pitta become incompatible to perform normal digestion. As a result formation of aam, persists instead of quantitative enhancement of pitta. When it is in chronicity then it become more troublesome. In this context dipan pachan medicines are not so much indicated Grahi or adsorbent type medicines are more useful in IBS-D as muhur drava (frequent passage of loose motion) like features are more common and similarly that features found in Pittaja Grahani. So IBS-D may be called as modern correlation of the element pittaja grahani of ayurveda. In present article several ancient Ayurvedic text like charak samhita (1000/2500 bc) Sushruta samhita (500 BC) Ashtang hridaya (400 AD), madhav nidana (900 AD) Bhav prakash (16th century AD) have been reviewed vividly to gather the information regarding etiology of disease which is based on faulty life styles improper dietary regimen and mal medication and symptomatology where samanya (common) symptoms of grahani and vishesha lakshan of pittaja grahani have been collected and presented in methodical manner with tables and charts etc.

Materials

As this article based on literary review so different ancient literatures like charak samhita (1000/2500 BC), Susruta samhita (500 BC), Astangsa hridaya (400AD), Madhava nidana (900 AD) has been taken as the material for thorough review of grahani, grahani dosa & grahani roga in vivid.

Harrison principles of internal medicine, Davidson principle and practice of medicine like modern famous books has been vividly reviewed in the context of irritable bowel syndrome (IBS) in general and IBS D (predominant diarrhea) specific to collect data and information have been furnished here in a methodical manner.

Methods

The information regarding nidana (etiology) which is related to ahara (diet) & vihara (habit), samprapti (pathogenesis), purvarupa (premonitory sign & symptoms), rupa (cardinal symptoms), upadrava (complication) & parinama (fate) of grahani roga has furnished here within a table, chart & schematic diagram form in a methodical manner. Similarly modern information also furnished here in the same methodical way.

Nirukti or Vyutpatti (Etymology)

The 'Grahani' words comes from "GRAHA + ANP" associated with "RIS" Pratyaya. It means GRAHANAT (Power of restrain the downward movement).

Description of Grahani

अग्नाधिष्ठानमन्नस्यग्रहणाद्ग्रहणीमता:II Ch.Chi.15/56

ग्रहणीमाश्रितअग्निदोषग्रहणीदोष I Ch.Chi.15/1-2 (Chakrapani)

Grahani, is the site of Agni (enzymes responsible for digestion & metabolism). It is located above the umbilical region, & is supported and nourished by the strength of Agni. Normally, it restrains the downward movement of undigested food & after the digestion, the food is released to the colon through the sides of Grahani (lumen) [1].

According to Chakrapani, Malfunctioning or impairment of Agni which is resides in the Grahani (duodenum & the upper part of small intestine) is called Grahani roga.

According to Susruta Samhita, Grahani is nothing but a Sastipittadhara kala which is situated between Pakvamasaya (stomach & intestine).

Grahani Bheda (Types)

According to Charaka samhita it is of 4 types

- Vataja Grahani
- Pittaja Grahani
- Kaphaja Grahani
- Sannipataja Grahani

According to Madhavakara it is of 6 types. He added extra 2 types namely,

- Samgraha Grahani
- Ghatyantra Grahani

According to Gananath seen others 4 typeof Grahani are as follows.

- Raj Grahani
- Khataja Grahani
- Kshayaja Grahani
- Nirmoka Grahani

Nidana of Grahani (Etiology)

It can be categorized in two different ways

- Samanya nidana (general)
- Vishesha Nidana (specific)

Samanya Nidana

Grahani roga mainly manifests due to Ajeerna, hence nidana of Ajeerna could be considered as the nidana of Grahani associated by Acharya Charaka. The following nidana (etiology) are very much important towards genesis of Grahani.

Table 1: Showing general etiology

Nidana	Karma
Aharaja (Dietary habit)	Intake of unwholesome, heavy, cold, excessively un-unctuous & polluted food, Abuse of Fasting, excessive & irregular eating.
Biharaja (Habit & activities)	Suppuration of natural urges, night awakening, working just after taking food, inappropriate physical exercise.
Acharaja (improper therapeutic measures)	Improper administration of snehana (Oleation), swedana (fomentation), vamana (vomiting) & virechna (purgation) therapy.
Upodrabik (As complications of other diseases)	Patient suffering from diarrhea with poor digestive power in spite of having unwholesome diet

Vishesh nidana (specific): According to *Charak Samhita*

Table 2: Showing specific etiology

Dosha	Vataja Grahani	Pittajaa Grahani	Kaphaja Grahani
Food Taste	Pungent-bitter-astringent food	Pungent-sour-Alkaline food	Sweet-heavy food
Food properties	Dry & cold	Excessive hot & Spicy	Excessive cold & slimy
Food habit	Fasting & deficient Diet	Food intake even after indigestion	Overeating
Regiment	Excessive sexual intercourse, walking long distances	Excessive age, alcohol intake	Sleep drinking immediately after food intake

Etiopathogenesis of Grahani: In the abnormal condition, when *Grahani* get vitiated because of weakness of *Agni*, it produces & latter releases the undigested & digested food (either in uncooked or cooked form) accompanied with pain in the abdomen, eliminates bad smelling feces sometimes constipated & sometimes liquid & often (frequent manner), this disease is called *Grahaniroga* [2].

Samprapti (Etiopathogenesis)

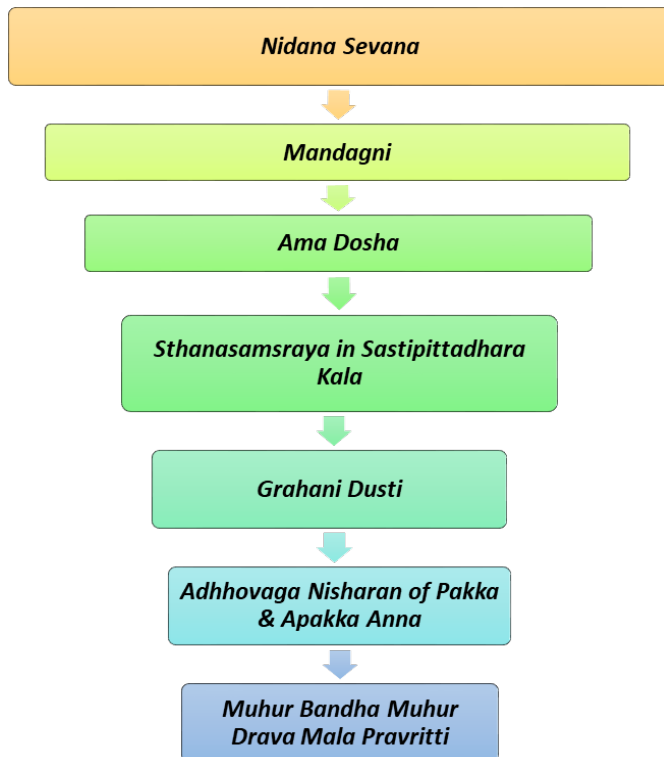


Fig 1: Schematic diagram of *Grahani Samprapti* (Etiopathogenesis)

Samprapti Ghataka

- *Dosha-Tridosha*
- *Dushya-Anna, Rasa*
- *Srota-Annabaha & Purishabaha*
- *Adhithana-Sastipittadhara Kala, Grahani*
- *Srotadusti-Atiprabritti*
- *Swabhava-Daruna*

- *Sadhyasadhatwa-Kricchasaddha*

Purva rupa (premonitory sign & symptoms) of Grahani [3, 4]

Table 3: Samanya purvarupa of grahani

S. No.	Purva Rupa	Charak	Sushruta	Vagbhata
1	Trishna (Thirst)	+	+	+
2	Alasyam	+	+	-
3	Balakshaya (loss of strength)	+	+	-
4	Annasyavidaha	+	+	-
5	Chirapaka (delayed digestion)	+	-	+
6	Kayasya gourvam (heaviness of the body)	+	-	+
7	Sadana (lassitude)	-	+	+
8	Klama (Exhaustion)	-	+	+
9	Aruchi (Aversion of food)	-	+	+
10	Kasa (cough)	-	+	-
11	Karnakshweda (Ringing in ear)	-	+	+
12	Antrakujanam (Rumbling sound in the intestine)	-	+	+
13	Preseka (salivation)	-	-	+
14	Vaktravairasaya	-	-	+
15	Bhrama	-	-	+
16	Anaddhodarata	-	-	+
17	Chardi	-	-	+
18	Amlapakam	-	-	+

Specific Signs & Symptoms of Grahani: [5]

- **Vataja Grahani** Difficulty in digestion, Roughness of the body, Dryness of mouth & throat, Excessive hunger & thirst, Appearance of darkness in the eyes, Abnormal sound in ear, Frequent pain in the sides of chest, cardiac region, abdomen, thigh, pelvic area & neck, Diarrhea, Difficulties in stool passing, hard stool mixed with *Ama* (mucous) associated with sound & froth.
- **Pittajaa Grahani**
 - The patient passes undigested,
 - Bluish or yellowish liquid stools,
 - Complexion become yellowish, having foul smelling bad eructation,
 - Having thirst & anorexia, burning sensation around cardiac & throat region.
- **Kaphaja Grahani:** The patient passes loose, mucoid & bulky stools mixed with mucous & phlegm. nausea, Vomiting, anorexia, A feeling of Stickiness and sweet taste in the mouth. Cough, (repeated) Spitting and chronic rhinitis.
- **Samgraha Grahani:** The patient passes liquid, cool, dense, unctuous and bulky, mucoid stools containing undigested food material along with production of sound and mild pain. The condition aggravates during the daytime and subsides in the night. Gurgling sound in the abdomen.
- **Ghatyantra Grahani:** When colicky pain occurs on either of the side on lying down and intestinal gargling sounds are heard similar to that produced by a pitcher dipped inside water.
- **Raj Grahani:** These types of disease present usually in royal or similar wealthy family. It's features like watery,

Thick, yellowish and white stool, Steatorrhea, Anemia, Whitish body and tongue, stomatitis. Inflammation of Anus.

- **Khataja Grahani:** It is usually happened for those who suffered from chronic dysenteric diarrhea or ulcerative colitis. It's features like. Passing mucoidliquid stool with melena.
- **Kshayaja Grahani:** when the intestinal wall gets distorted by the effect of harmful bacteria then the patient frequently passes mucous mixed stools with melena.
- **Nirmoka Grahani:** Just like a snake shedding his skin similarly the patient passing of stools mixes with intestinal mucous membrane, associated with pain & constipation.

Differential Diagnosis

Table 4: showing differences between IBS vs diarrhea vs dysentery

Grahani (IBS)	Atisara (Diarrhea)	Prabahika (Dysentery)
Chronic disease	Acute disease	Acute disease
Body gradually emaciated	No such	No such
Usually related to stomach & upper part of small intestine	Mostly related to small intestine	Mostly related to colon
sometimes mucous & rarely blood present in stool	No blood & mucous present	Mucous(always) & blood present
Sometimes voluminous fluid feces sometimes scanty constipated feces	Voluminous fluid feces	Scanty sticky feces
Tenesmus present occasionally	No such	Present frequently
Common disease	Very Common disease	Rare disease
Because of weakness in digestive metabolic fire & partly psychological.	Mostly due to viral infection	Mostly due to bacterial infection
Difficult to cure	Easy to cure, sometimes it is self-treatable.	Easy to cure if treated early. Otherwise, it could be fatal if not treated.

Upadrava (Complication) of Grahaniroga [6]

According to Harita Samhita there is mention six different complications like,

- Hepato-splenomegaly

- Tching
- Constipation
- Prostate enlargement
- Worm infestation
- Ascites

Modern Review

Irritable bowel syndrome (IBS) is a functional bowel disorder in which Approximately 20% of the general population fulfill diagnostic criteria for IBS but only 10% of these consult their doctor because gastrointestinal symptoms. Never the less, IBS is the most common cause of gastrointestinal referral & accounts for frequent absenteeism from work and impaired quality of life. Young women are affected 2-3 times more often than men. abdominal pain is associated with defecation or a change in bowel habit [7].

Epidemiology: Approximately 20% of the general population fulfill diagnostic criteria for IBS but only 10% of these consult their doctor because gastrointestinal symptoms. About 10-15% of people in the developed world are affected by IBS. The prevalence of IBS in North India community is 4%.

Etiology: IBS encompasses a wide range of symptoms & a single cause is unlikely. It is generally believed that most patients develop symptoms in response to psychological factor, altered gastrointestinal motility, altered visceral sensation or luminal factor.

Features of IBS:

- Altered bowel habit
- Colicky abdominal pain
- Abdominal distention
- Rectal mucous
- Feeling of incomplete defecation

Diagnostic Criteria: ROME IV Criteria for IBS [8]

- Recurrent abdominal pain on average, at least 1 day per week in the last 3 months.
- Onset of abdominal pain is ≥ 6months before diagnosis.
- associated with two or more of the following:
 - i). Pain related to defecation.
 - ii). Change in the frequency of stools.
 - iii). Change in stool form or appearance.

Rome IV Criteria uses the Bristol stool chart which classifies stools into seven different categories as per their shape and texture.

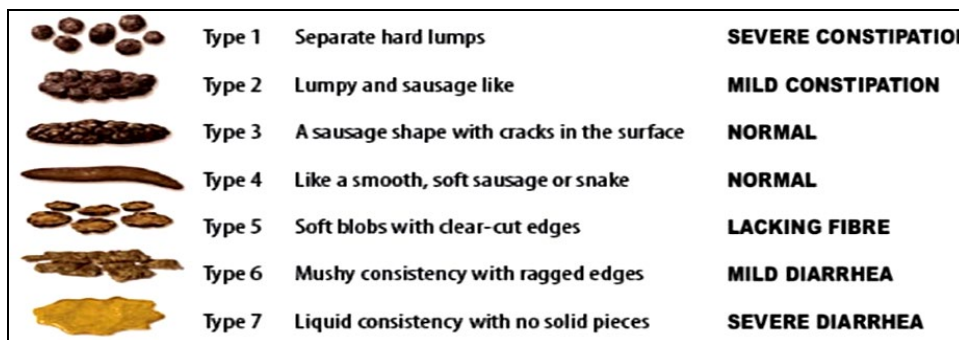


Fig 2: Bristol stool chart [9]

IBS Subtypes

Table 5: Showing types of IBS

No	Types	Features
1.	IBS-C (predominant constipation)	Hard & lumpy stool $\geq 25\%$ (Bristol stool types 1 or 2) and loose & watery stool $< 25\%$ (Bristol stool types 6 or 7).
2.	IBS-D (predominant diarrhea)	Loose & watery stool $\geq 25\%$ (Bristol stool types 6 or 7) and hard & lumpy stool $< 25\%$ (Bristol stool types 1 or 2).
3.	IBS-M (Mixed bowel habit)	Both diarrhea $\geq 25\%$ & constipation $\geq 25\%$ (Bristol stool types 1-2 or 6-7)
4.	IBS-U (unspecified or unclassified)	A person cannot accurately categorize their bowel habits into any of the above three groups

Discussion

In present article it has been tried to assemble the opinion of different ancient ayurvedic classics like Charak, Shusruta, Vagbhata, Madhav kar, Bhavmishra regarding the nidana (etiologies) samprapti (pathogenesis), rogalakshan (symptomatology), sadhya-asadhyatva (prognosis), upadrava (complications) etc of grahani roga in general and pittajaa grahani in special. It is evident that the prevalence of irregular bowel syndrome (IBS) is 20% all over the globe and among those population 10% are suffering from IBS-D, where abdominal pain and discomfort, blotting, changing in stool frequency and or form. Among these complains stool found often loose or more frequent. In common IBS abdominal pain and discomfort associated with a change in a bowel habits are usually found which are similar to the feature of grahani rogas as described by our classics.

Almost all Acharyas of Ayurveda have described the features of grahani where some times loose some time hard constipated and sometime mixed bowel evacuation has been found. As per the similarity of clinical findings Grahani roga and IBS are almost equal in character.

Ayurveda mentioned different varieties of grahani rogas like vataja grahani, pittajaa grahani, kaphaja grahani, sannipataja grahani, somyak grahani, Nirmok grahani, ghati yantra grahani, raj grahani as per the involvement of dosha as well as the symptomatic specificity. Previously vataja grahani has been taken into consideration as an ayurvedic correlation of IBS-C Similarly in present one Pittajaa grahani has been vividly reviewed and found its symptomatic Correlation with IBS-D. It has been revealed that when pitta becomes vitiated by excess Drava (liquidity) guna of its own then the effectivity over digestion and metabolism become dearranged & naturally those mal digested food product are not undergone proper absorption. As a result those undigested & mal absorbed food products come out frequently through evacuation mixed with ama, stool takes different varieties of Colors like pita (pale yellow), Lohita (reddish), Haridra (yellowish) etc. The event like frequent passage of loose motion indicates enhancement of sara guna of pitta which leads to discomfort of abdomen and in later mal nutrition like Complications persist. Ayurveda has given maximum Importance to kshetra (area), where the area of vitiated kshetra as in grahani is *Sasthi Pitta dhara kala*. As a result whole Small Intestine become affected and produces several symptoms like bloating, Burning Pain in abdomen, Anorexia, Nausea etc. So Considering all those etiologies Physicians could be able to frame the treatment protocol by advising themselves regarding removal of etiologies like abhojan (fasting), atibhojana (overeating), visamaasana (irregularity in

food habit) asatma bhojana (mal combination of food) samdusta bhojana (toxic food intake) etc and enhancement of Agni by pacifying the Drava and Sara guna through grahi (absorbent) and deepan-pachan dravya (digestive stimulai) beside making balance of vayu through life style modification.

Conclusion

From above discussion it could be concluded that, The Ayurvedic ailment pittajaa Grahani may be co-relate with the modern ailment Irritable bowel Syndrome (IBS-D) as per the Similarities in Signs & Symptoms. Another point could also be concluded that in Pittajaa Grahani dearrangement of Agni takes place due to over or excess influence of Drava and Sara guna of Pitta which causes improper digestion & mal absorption of the Ingested food.

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