

# A Literary Review on Etiopathogenesis & Symptomatology of *Vataja Grahani* W. S. RTO IBS

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**Abstract:** Now a days the disease related to digestive system are very much troublesome to common people all over the globe. Among those diarrheal disease, Constipated bowel evacuation, Malabsorption syndrome, Inflammatory bowel disease (Ulcerative colitis & Crohn's disease) etc. are more frequent. Through the modern medicaments proper managements or solutions are found unsatisfactory among those diseases. The greatest ancient medical science Ayurveda has dealt with the disease of *Annabaha* & *Purishabahasrotas* (gastrointestinal & evacuatory bowel system) very precisely through the correction of *Agni* (digestive and metabolic juice). As this holistic science believe that the all sorts of diseases are caused by over-functioning, nonfunctioning, malfunctioning or improper activities of the *srotas* (alimentary canal). In this article it has been tried to bring forward the ancient Ayurvedic concept before the reader regarding the pathogenesis & symptomatology of one troublesome bowel disease which is *grahani* in general and *vataja Grahani* in special. This study is also an effort towards making correlation between irritable bowel syndrome with constipation (IBS-C) and Chronic *vata* provoked *grahaniroga* or *vatajagrahani*. The literatures of the ancient era as well as the modern period have been thoroughly reviewed to establish such correlation which would help the Ayurvedic practitioner to find out the solution against this problematic disease by proper breaking of pathogenic pathway for the betterment of suffering humanity.

**Keywords:** *Grahaniroga*, *Vataja grahani*, *Agni*, IBS

## 1. Introduction

The ancient Ayurvedic thought is derangement of *Agni* (Metabolic and digestive fire) is the root cause of maximum diseases as well as *Srotobhanga* (multi system dysfunction) which leads to manifestation of sign and symptoms of all the diseases. *Grahani* is such a disease of gastrointestinal system where *Agnidusti* (malfunction of digestive and metabolic juice) is bound to happen. In modern era people are indulging them self with several lifestyle disorder by having faulty diet, sedentary habits & injudiciously taking medicaments by its own. As a result of that irritable bowel syndrome (IBS) like diseases are frequently observed among the people of the world. Unfortunately, 30% of people globally are experiencing such problematic condition which is more or less similar to the symptoms of *Grahani* as stated in ancient text. *Grahani* is a very important organ of *Annabahasrotas* (gastrointestinal tract) as *aharapaka* (digestion) is greatly dependent upon its function. The term *grahani dosa* implies all the disease located in the *Grahani* (duodenum including small intestine). *Agnimandya* (digestive insufficiency), *Ajeerna* (indigestion) etc. are also called *grahaniroga* only in a secondary sense as because these are located in *grahani* but doesn't release undigested food unlike *grahaniroga*. This specifically covers four types (*vata-pitta-kapha-sannipataja*) of *grahaniroga*. There are also some others types of *grahaniroga* which have been mentioned in different classics. The distinctive features of this disease are frequent voids stool which is partly *pakva* (product of digested food) & partly *apakva* (product of indigested food) associated with abdominal pain & discomfort.

The irritable bowel syndrome is such a disease where abdominal discomfort found during purgation due to dysfunction of bowel (gut or small intestine). Where irritability in bowel habit is evident and manifested by Sometimes loose, sometimes hard or constipated & sometimes mixed bowel evacuation is found. In this context irritable bowel syndrome commonly categorized into 4 types. These are IBS-C (predominant constipation), IBS-D (predominant diarrhea), IBS-M (Mixed bowel habit where both diarrhea & constipation found) & IBS-U (unspecified or unclassified). Generally, in irritable bowel syndrome somatic factors are complicated with psychological involvement which gives rise to features like fatigue, lethargy, debility and mental irritability. In present study, IBS-C have been taken into consideration to find out its correlation with *Vataja grahani* of ayurveda. The specific features of IBS-C are hard or lumpy stool associated with abdominal pain & discomfort etc. Which are more or less similar to. *Vataja grahani*. So different ancient literatures like, *Charaka Samhita* (500-2500/1000bc), *Susruta Samhita* (500bc), *Ashtanga Hridaya* (400ad), *Madhava Nidana* (900ad) have been thoroughly reviewed to collect data and information regarding etiology, pathogenesis and symptomatology of *Grahaniroga* in general & *Vataja grahani* in specific. The information has furnished here with in a methodical and scientific manner for the better understanding of reader.

## 2. Materials

As this article based on literary review so different ancient literatures like, *Charaka Samhita* (500-2500/1000bc), *Susruta Samhita* (500bc), *Ashtanga Hridaya* (400ad), *Madhava Nidana* (900ad) has been taken as the material for

through review of *grahani*, *grahani dosa* & *grahaniroga* in vivid.

Harrison's Principles of Internal Medicine, Davidson's principals & practice of medicine like modern famous books has been vividly reviewed in the context of irritable bowel syndrome (IBS) in general & IBS-C (predominant constipation) in specific to collect data and information have been furnished here in a methodical manner.

### 3. Method

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 *grahaniroga* 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.

#### 3.1 Ayurvedic Literature Review

##### *Grahaniroga* at a glance:

##### **NIRUKTI OR BYUTPATTI (ETYMOLOGY)**

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

##### **Description of *Grahani*:**

अग्रअधिष्ठानमन्नस्यग्रहनाद्ग्रहणीमतः 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).<sup>(1)</sup>

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

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

***Grahaniveda* (types):** According to *Charakasamhita* it is of 4 types

- 1) *Vataja Grahani*
- 2) *Pittaja Grahani*
- 3) *Kaphaja Grahani*
- 4) *Sannipataja Grahani*

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

- 1) *Samgraha Grahani*
- 2) *Ghatyantra Grahani*

According to *Gananathsen* others 4 type of *Grahani* are as follows.

- 1) *Raj Grahani*
- 2) *Khataja Grahani*
- 3) *Kshayaja Grahani*
- 4) *Nirmoka Grahani*

##### ***Nidana of Grahani* (etiology):**

It can be categorized in two different ways

- 1) *Samanyanidana* (general)
- 2) *Visheshanidana* (specific)

***Samanyanidana* (general):** *Grahaniroga* mainly manifests due to *Ajeerna*. Hence *nidana of Ajeerna* (indigestion) could be considered as the *nidan* of *Grahani* as stated by *Acharya Charaka*. The following *nidan* (etiology) are very much important towards genesis of *Grahani*.

**Table 1:** showing general etiology of *grahaniroga*

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

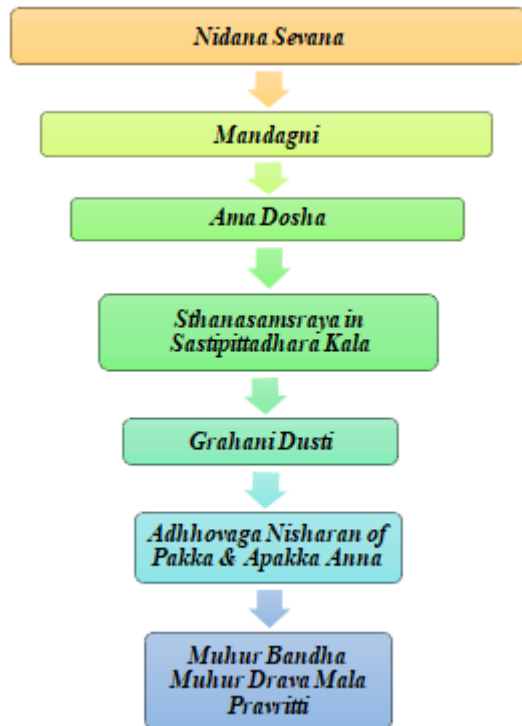
***Visheshanidana* (specific):** According to *Charak Samhita*

**Table 2:** Showing specific etiology of *grahaniroga*

<i>Dosha</i>	<i>Vataja Grahani</i>	<i>Pittaja Grahani</i>	<i>Kaphaja Grahani</i>
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 ager, alcohol intake	Sleeping 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 formed) accompanied with pain in the abdomen, eliminates bad smelling feaces sometimes constipated & sometimes liquid & often (frequent manner), this disease is called *Grahaniroga*.<sup>(2)</sup>

***Samprapti* (Etiopathogenesis):****Schematic diagram of *Grahaniroga 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*<sup>(3, 4)</sup>**

- Morbid thirst
- Laziness
- Diminution of strength
- Burning sensation
- Delayed digestion
- Heaviness of abdomen
- Heaviness of body
- Anorexia)
- Cough
- Tinnitus
- Gurgling sound in abdomen

**Specific Signs & Symptoms of *Grahani*:<sup>(5)</sup>****1) *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
- Weakness & emaciation
- Distaste in mount
- Mental frustration
- Craving for foods (which are having all six tastes)
- Flatulence during & after the process of digestion
- Temporary relief immediately after having food
- Voids stool frequently with cough & dyspnea
- Difficulties in stool passing
- Hard stool mixed with *Ama* (mucous) associated with sound & froth.

- Pittaja 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 sides 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. Its 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. Its 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 3:** showing differences between IBS vs diarrhea vs dysentery

<i>Grahani</i> (IBS)	<i>Atisara</i> (diarrhea)	<i>Prabahika</i> (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** <sup>(6)</sup>

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

- Hepato-splenomegaly
- Itching
- Constipation

- Prostate enlargement
- Worm infestation
- Ascites

**Pathya - Apathya:****Table 4:** Showing diet & regiment of *grahaniroga*

Pathya Ahara	Pathya Bihara	Apathya Ahara	Apathya Bihara
Lajamanda, Takra, Masur dal, mudgayusa, goat milk, unripe banana etc.	Vamana, Langhan, Upabasa, divaswapno etc.	Whole flower, potato, jaggery, milk etc.	Ratrijagran, snana, veg-dharana, nasyakarma, anjana, sveda, dhumpnan, excessive water intake etc.

**Modern literature review:**

Irritable bowel syndrome (IBS) is a functional bowel disorder in which abdominal pain is associated with defecation or a change in bowel habit. <sup>(7)</sup>

**Epidemiology:**

Approximately 20% of the general population fulfill diagnostic criteria for IBS but only 10% of these consult their doctor because gastrointestinal symptoms. Nevertheless, 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.

**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 <sup>(8)</sup>

- Recurrent abdominal pain on average, at least 1 day per week in the last 3 months.
- Onset of abdominal pain is  $\geq$  6 months before diagnosis.
- associated with two or more of the following:
  - Pain related to defecation.
  - Change in the frequency of stools.
  - 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.

Picture 1: Bristol stool chart (<sup>9</sup>)**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

**4. Discussion**

There are several conceptual studies have been done by the scholar on the field of gastroenterology in ayurveda related to *grahani*. It has been observed *grahani* is a part of *Annabahasrota* (from pyloric end of the stomach to the second part of duodenum or somewhere mentioned whole small intestine itself). *Grahan* (receiving of food materials), *pachana* (digestion of food), *soshana* (absorption of food) & *viyajan* (assimilation of food) are the mainfunction of this organ. Among those function *pachana* (digestion) takes maximum importance. So, if the proper *pachana kriya* (digestion) is not happen then the next immediate steps which are *soshana* & *viyajan* (absorption & assimilation of the food) are also hampered subsequently. As a consequence, Malabsorption syndrome is carried out as a disease called *gahani* or *grahaniroga*. In this present article different ayurvedic literatures have been reviewed vividly from which it can be stated that *Vataja grahani* may be considered as the modern correlation of IBS-C (Constipated predominant - Irritable bowel syndrome) which is significantly irritating in nature towards evacuation of bowel along with the abdominal discomfort. In Ayurvedic classics our ancestors have mentioned mainly four types of *grahani* like *vataja*, *pittaja*, *kaphaja* & *sannipataja*. Some special types of *grahani* like *Raj Grahani*, *Khataja Grahani*, *Kshayaja Grahani*, *Nirmoka Grahani*, *Samgraha Grahani* & *Ghatiyantra Grahani* have also been mentioned by the Ayurvedists of modern era.

It indicates that the abdominal discomfort, digestive discomfort or discomfort related to bowel movement is gradually becoming a great problem to the society. Now the society needs a fruitful solution by which to combat such challenging problems. The concept of Agni in Ayurveda is a unique discovery of our ancestors where it has been told that maintain of the status of *agni* is the prime aims & objectives

towards providing health of an individual. *Pachakagni* is the main Agni which helps to maintain proper digestion & give rise to Strength, complexion, courage & lustre of the body itself. In *Vataja grahani* the pathogenesis is mainly occurred by aggravation of *vata* & dysfunction or derangements of *agni* itself which leads to manifestation of symptoms like difficulties in stool passing, hard stool mixed with Ama (mucous) associated with sound & froth & frequent pain in the sides of chest, cardiac region, abdomen, thigh, pelvic area & neck etc. As IBS-C is such an irritating problem where evacuation of feces becomes deranged with the sense of unsatisfactory complication with some special features like hard or lumpy stool associated with abdominal pain & discomfort etc. Considering the features of *vatajagrahani* as well as and the sign and symptoms of IBS-C, it could be stated that both the ailments are more or less same in sign & symptoms. In present era nothing affirmative management is found against irritable bowel syndrome. So, Basic principle of *grahani* management of Ayurveda may play a great role for the betterment of suffering humanity of this problem. As per Ayurveda *nidanaparimarjana* (removal or avoiding of etiological factors) is the first line of management against all disease. So, the etiology which have been revealed through literature review like excessive intake of pungent-bitter-astringent-dry-cold food, fasting & deficient diet habits, excessive sexual intercourse, walking long distances etc. may be removed from the lifestyle as the prevention & cure of the disease. Nowadays, lifestyle disorders are the major factor related to non-communicable diseases. Breaking or avoidance of the etiological factors which already mentioned earlier is the only way to prevention of this particular disease & to get restoration of health easily.

**5. Conclusion**

From above discussion, it could be concluded that, as the features of *Vataja grahani* are more or less similar to the

features of IBS-C. So, Irritable bowel syndrome with constipated predominant could be a modern correlation of *Vataja grahani*. Concept of *agni*, preservation & maintenance of *agni* could throw a ray of hope against the troublesome problem *Vataja grahani* or IBS-C. Lifestyle disorder related to diet, habit drugs & exercise etc. also have a great role in causation of the disease *grahani* or irritable bowel syndrome.

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