



**A CRITICAL REVIEW OF VATAJA GRAHANI WITH SPECIAL REFERENCE TO
IRRITABLE BOWEL SYNDROME**

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ABSTRACT

Background: Agni is the factor responsible for every metabolic activity in the body and whole body is dependent on Agni. Hampered agni causes numerous disorders and one such condition where Agni as well as the ashaya of Agni is hampered is Grahani roga. Among types of Grahani, Vataja Grahani is commonly observed in the population. Its symptoms include Muhur badda, muhur drava, muhur muhur mala pravrutti, udarashoola, amlodgara, avipaka, vishthambha. This condition correlates with Irritable Bowel Syndrome which has symptomatology of cramping, abdominal pain, bloating, gas, and diarrhea or constipation, or both. Irritable bowel syndrome (IBS) is a common disorder that affects the large intestine. Signs and symptoms include cramping, abdominal pain, bloating, gas, and diarrhea or constipation, or both. IBS is a chronic condition that you'll need to manage long term. In Ayurveda classics it can be correlated to Vataja Grahani as the etiological factors and symptoms of both are nearly. Signs & symptoms includes Muhur badda, muhur drava, muhur muhur mala pravrutti, udarashoola, amlodgara, avipaka, vishthambha. **Materials and methods:** Various sources extending from classical Ayurveda samhitas, text books of contemporary medicine and e-sources were accessed to review the concepts of IBS and Vataja Grahani. **Discussion:** In Ayurveda, description of Vataja Grahani matches the symptomatology of IBS such as cramping, abdominal pain, bloating, constipation and diarrhea. Prime etiological factors of IBS are stress factors, sedentary life style. IBS has no definitive treatment but could be controlled by non-pharmacologic management eliminating of some exacerbating factors like certain drugs, stressor conditions and changes in dietary habits. Grahani also mentioned as one of the *Astamahagadha* in Ayurveda classics.

KEYWORDS: Vataja Grahani, Irritable Bowel syndrome, Agni, muhur badda, muhur drava.

BACKGROUND

IBS has a significant impact on patient's quality of life due to physical suffering, psychological co-morbidity, social disability and economic non-productivity.

The prevalence of irritable bowel syndrome (IBS) varies from 4% to 20% in different Asian nations. Prevalence of IBS in native North Indian community is not known. But in research study, it has noted in a Northern Indian community prevalence is 4%.

There are many number of diseases caused merely by Agnidusti with regards to the quotation of Vagbhata "Rogah sarve api mandagno".^[1] Grahani is a disease caused due to Agnimandya. changing food habits and altered lifestyle of the people in the present era which has flagged way for various disorders. Vataja Grahani is one such disorder manifesting itself in this new era. The number of incidence is rising day by day.

Agni is said to be vitiated in Grahani avayava and hence considered as Grahani dosha. In Vataja Grahani roga there is vitiation of Grahani avayava.

In modern science this can be correlated with Irritable bowel syndrome which is said to be difficult for management.

WORD MEANING OF GRAHANI

Comprehensive and exhaustive literary review of classical Ayurveda treatises along with the grammatical derivation of the word helps us to understand the correct meaning. The word 'Grahani' is 'streeinga shabda' originated from 'grah' upasargapoorvaka, 'anya krit 'dhatu and 'neep' pratyaya. i.e.,

- grah + ani vaa neep, swanamakhyata rogabhedo
Word resembles the site of the disease and the pathogenesis explained as swanamakhyata disease.
- Grahani + kridikarantadinaktinah iti 'neep',
agnyadhithana na naadi, swanamakhyata roga

Grahani is the site of agni and explained as swanamakhyata roga.

- Grunhati rogin deham graham ani va 'neep', pittadharakhye kala bhede tadashrite roga bhede As Grahani is the site of agni and pittadharakala it plays major role in the pathogenesis of the disease.

Understanding samprapti will be better through functional anatomy of small intestine. Because in Grahani there will be defect in both functional and anatomical deformity of small intestine.

Functions of Grahani are 'annam grahannati, pachati, vivechayati, munchati'. Small intestine does the function of collection of food, digestion, absorption and propulsion.

Small intestine contains three important glands

- Intestinal Villi – Villi's are minute projections (height 1mm, diameter<1mm). These villi are lined by columnar cells (enterocytes) which gives rise to hair like projections microvilli. These number about 20-40 per sq.mm.

Intestinal mucosa contains longitudinal folds (kerckring). The villi and microvilli and kerckring increase the surface area of mucous membrane by many folds.

In some of the disease there will be damage of mucosa and atrophy of villi resulting in impaired secretions, digestion and absorption ultimately leading to irritability and diarrhea.

- Crypts of Lieberkühn – These are simple tubular glands which open into the lumen of intestine between the villi.

Three important types of cells which are interposed between columnar cells of the glands are,

Argentaffin cells (enterochromaffin cells) - These secrete hormones like Serotonin.

Goblet cells – These secrete mucus.

Paneth cells – These secrete the cytokines called defensins.

- Brunner's Glands – These are mucus glands of first part of Duodenum which secrete mucus and traces of enzymes which plays important role in digestion.^[2]

“Annam Grahnati Vivechayati Munchati”^[3], mentioning of 'Munchati' is better understood by knowing the movements of small intestine. The term 'Munchati' is used for propulsion of food material by peristalsis. These are produced by contraction and relaxation of the muscles of the small intestine. Content of the gut produces a stretch on the wall of gastrointestinal tract which initiates the peristalsis wave which proceeds caudally.

In the peristalsis wave a ring of contraction appears immediately behind the bolus which results in the forward movement of the bolus. The wave of peristalsis in the small intestine moves for about 10 cm and then dies.

Intestinal motility is influenced by Neural and Chemical processes.

Neural – Stimulation of parasympathetic fibers increases the frequency and strength while that of sympathetic reduces them. Such as chemical like NT's can alter (increase/decrease) intestinal motility and also serotonin (5-HT) increases while adrenalin decreases the peristalsis.^[4]

Structural or functional deformity of small intestine leads to physiological and pathological changes as a result shows altered bowel habit with many other symptoms villous atrophy will set in.

Partial villous atrophy – Villous becomes short and broad commonly called convolutions and irregular ridges.

Subtotal/Total villous atrophy – Severe form of lesion in which there is flattening of mucosa due to more advanced villous fusion which leads to malabsorption. In contemporary science, the “brain-gut axis” can be conceptualized as the bidirectional connection system between the GI tract (with its enteric nervous system) and the brain (central nervous system) through (autonomic) neural, neuro-immune and neuroendocrine pathways. Thus, when gut function is disturbed, the cause of this disturbance can be found in the GI tract itself or in the modulatory input from the central nervous system *via* the brain-gut axis⁵. Whenever alterations in the peristaltic movements there will be alternate constipation and loose stools which is the one of main symptom of IBS.

Charaka described *Samanya nidana* of *Grahani dosha* as follows. *Mithya ahara*/Dietetic causes (ch.chi.15/42) like *Abhojana* (without food), *Ajeerna Bhojana* (eating before) *Atibhojana Vishamasana Asaatyama*, *Guru, Sheeta, Ati rooksha bhojana Sandusta bhojana Mithya viharas/behavioural causes (ch.chi. 15/43) like Vireka, Vamana, Sneha vibramath Vegaavarodha Vyadhi karshanath.*

Table 1: Showing Similarities of Grahani and IBS at the level of Etiology.

Vataja Grahani	IBS
<i>Abhojana</i>	No intake of food
<i>Ajeerna Bhojana</i>	Undigested food
<i>Atibhojana</i>	Over eating
<i>Vishamasana</i>	Irregular food habits
<i>Asaatyamy, Guru, Sheeta, Ati rooksha bhojana</i>	Heavy or cold food intake
<i>Sandusta bhojana</i>	Putrid food intake
<i>Mithya viharas</i>	behavioral causes
<i>Vireka, Vamana, Sneha vibramath Vegaavarodha</i>	Holding urges,
<i>Vyadhi karshanath</i>	Complications of other diseases like hemorrhoids, diarrhea etc

Table 2: Showing Similarities of Grahani and IBS at the level of Pathogenesis.

Vataja Grahani	IBS
<i>Samana Vata dushti</i>	Abnormal gut motor activity
<i>Agni Dushti</i>	Abnormal gut sensory activity
<i>Prana vata dushti</i>	Central nervous dysfunction
Impairment of regular functions of <i>Vata</i> and <i>Pitta</i>	Physiological disturbances
<i>Kala dushti</i>	Luminal factors involvement

From above all concepts and correlations it can be concluded that *Vataja Grahani* matches most with the IBS.

Table 3: Showing the comparison between Lakshana of Grahani and IBS.

Vataja Grahani	IBS
<i>Atisrishtam vibaddham va</i>	Altered bowel with alternate diarrhea and constipation
<i>Punah punah srijet varcha</i>	Frequent defecation
<i>Shoola</i>	Abdominal Pain
<i>Amameva vimunchati</i>	Passes mucus along with stools
<i>Jeerne jeeryati adhmanam</i>	Heaviness of abdomen after intake of food
<i>Parshva vankshana hritpeeda</i>	Pain on right and left sides (flanks), epigastric and hypogastric pain
<i>Chirat mala pravritti</i>	Delay in delivery of stools
<i>Dukhena mala pravritti</i>	Impaired rectal sensation and hence painful defecation
<i>Tiktamlodgara</i>	Indigestion
<i>Shabdha phena mala</i>	Gas, flatulence
<i>Hrillasa</i>	Heartburn
<i>Chardi</i>	Vomiting
<i>Shiroruk</i>	Head ache
<i>Manasaha sadanam</i>	Abnormal psychological behavior

Samprapti Ghataka

- Dosha : Vatapradhana Tridosha
[samanavayu, apanavayu, pachakapitta]
- Dushya : Rasa, Pureesha
- Agni : Jatharagni
- Ama : Jatharagnimandyajanya
- Srotas : Annavaha, Purishavaha,
Rasavahasrotas
- Dusti : Sanga, Atipravruthi
- Adhistana : Amapakwashaya
- Vyakthasthan: Guda and Sarva shareera
- Sancharisthana: Rasayani, Antakostha
- Rogamarga : Abhyantara
- Vyadhiswabhava: Chirakari

DISCUSSION

IBS is widespread in general population, 15% of general populations have some symptomatology suggestive of IBS but they do not seek medical attention. In fact, only

20% of patients who qualify for the diagnosis seek medical advice for the same. It appears to be a great cause of frustration among gastroenterologist that more than half of all patients that they investigate have no organic cause to explain their symptoms, which is, they have no pathology. According to Ayurveda, this disease can be considered as a Grahani roga. Etiological factors, pathogenesis, and symptoms of Vataja Grahani can well be correlated to IBS and various herbal medications and panchakarma (bio - purification) procedures are described in the treatment of Grahani roga. Irritable bowel syndrome is characterized by severe intestinal inflammation. This inflammation is mainly due to local release of pro-inflammatory mediators like cytokines and reactive oxygen species. This release of inflammatory mediators and migration of inflammatory cell, finally causing ulceration of the mucosa.

CONCLUSION

Grahani roga represents a group of digestive disorder. It is closely linked with *Agnimandhya*, *Koshta gata vata*

and *Atisara*. Impaired Agni and *Samana vata* are the most predominant factors in the pathogenesis of *Grahani*. *Prana vata* and *Apana vata* also have a significant role in *Grahani*. The etiological factors responsible for IBS, identified by various surveys, fit in to the *Nidana* of *Vataja Grahani*, explained earlier in the Ayurvedic text books. So, Etiology, pathogenesis, & symptoms stated for *Vataja Grahani* are similar to the Irritable bowel syndrome which has been described in contemporary science. Hence it can be concluded that IBS can be treated in Ayurveda under the treatment principles of *Vataja Grahani*.

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