

**A PREVALENCE OF VISHAMASHANA AS A NIDANA AND ITS ETIOPATHOLOGICAL STUDY ON VATAJA GRAHANI WSR TO IRRITABLE BOWEL SYNDROME**Dr. Shilpa M. S.<sup>1</sup>, Dr. Shivaprasad S. E.<sup>2</sup> and Dr. A. S. Patil<sup>3</sup><sup>1</sup>PG scholar, Department of Roganidana, Government Ayurveda Medical College, Bengaluru, Karnataka.<sup>2</sup>Assistant Professor, Department of Roganidana, Government Ayurveda Medical College, Bengaluru, Karnataka.<sup>3</sup>Professor and HOD, Department of Roganidana, Government Ayurveda Medical College, Bengaluru, Karnataka.

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**ABSTRACT**

*Vataja Grahani* is the most important and major disease of Annavaha strotas. Anatomically, *Grahani* is said to be situated above the *Nabhi* and between the *Amashaya* and *pakwashaya*. *Grahani* is *Adhithana* of *agni*, it is so called as it holds the *Ahara*. Normally it holds up the food till it gets digested and releases after *Ahara pachana*. But when *Agni bala* is reduced, *grahani* releases the ingested food even in *Apakva avastha*. This condition is termed as *Grahani*. Symptoms of *Vataja grahani* are *Punah Punah Srijet Varcha*, *Drava*, *Tanvama*, *Sashabdaphena*, *Dukkha Yukta Mala Pravritti*. *Ahara* is one among the *Tryopasthambha*. According to the principles of Ayurveda one should take food only after the digestion of previously consumed food. *Vishamashana* is quoted as "*Akale bahu calpam va bhuktam tu vishamashana*" that is consuming less or large quantities of food at improper time. *Vataja Grahani* can be correlated to Irritable bowel syndrome based on the similar signs and symptoms. Irritable bowel syndrome is a functional disorder of the gastrointestinal tract characterized by abdominal pain or discomfort and altered bowel habits in the absence of detectable structural, infective or biochemical abnormalities. Gastrointestinal issues are very widespread in society. The prevalence of IBS is around 7.5%. In the present era, due to increased competition in every field of life, most of the people are tending towards such a lifestyle which includes untimely food without maintaining proper quality and quantity, such poor dietary habits will contribute for *Agnidusti* and if not corrected earlier will lead to *Grahani Roga*. **Aim:** This study aims to investigate the prevalence of vishamashana in the etiopathogenesis of vataja grahani. **Results:** Out of 100 patients, 85% patients were found to be taking both *Alpa* and *Atimatra Ahara* in both *Aprapta* and *Ateetakala*.

**INTRODUCTION**

In Ayurveda, *Ahara* is regarded as one of the essential *Tryopasthambha*, highlighting its significant role in promoting health and well-being. It is beneficial to follow Ayurvedic principles by consuming food only after the previous meal has been fully digested and when a real sense of hunger arises. This practice not only supports effective digestion but also fosters a mindful approach to eating, contributing positively to overall health.

In the present era, due to increased competition in every field of life, most people are tending towards such a lifestyle which includes untimely intake of food without maintaining proper quality and quantity, *Vishamashana*, which refers to the consumption of either inadequate or excessive amount of food at inappropriate times, is quoted as "*Akale bahu calpam va bhuktam tu vishamashana*." such poor dietary habits will contribute to *Agnidusti* and if not corrected earlier will lead to *Grahani Roga*.

*Grahani Roga* one among the astamahagada, where impairment of *Agni*, along with *Samana Vayu* and *pacha pitta* and *kledaka kapha dusti* is seen and produces symptoms based on *Dosha* involved. *Vataja Grahani* is a type of *Grahani* with Predomonance of *Vata Dosha*. Symotoms of *Vataja Grahani* are *Punah Punah Srijet Varcha*, *Drava*, *Tanvama*, *Sashabdaphena*, *Dukkhayukta Mala Pravritti*.

From an Ayurvedic perspective, focused attention is placed on the idea of *Vishamashana* that literally means irregular or inappropriate eating. On the other hand, *Vishamashana* is said to manifest in distinct health problems throughout its manifestation.

The clinical manifestations of *Vataja Grahani* closely resemble those of Irritable Bowel Syndrome (IBS). IBS is a functional bowel disorder characterized by abdominal pain or discomfort and altered bowel habits, such as pain associated with defecation, frequency, urgency, passing mucus, gas, and flatulence, in the

absence of detectable structural abnormalities. No clear diagnostic markers exist for IBS; thus, the diagnosis of the disorder is based on clinical presentation. IBS is one of the most common conditions encountered in clinical practice with a Prevalence of 4 to 7.2%. The severity of symptoms varies and can significantly impair the quality of life resulting in higher healthcare costs.

Ayurveda wants to provide an improved and better solution for this specific problem by working on *vishamashana* and to prevent the occurrence of diseases caused by it. The present study aims to investigate the potential impact of *vishamashana* on the development of *vataja Grahani*. Understanding the role of *vishamashana* in the etiopathogenesis of this condition is crucial as it can provide insights into proper *Nidana*, thus enabling more effective management strategies.

### OBJECTIVES

1. To know the prevalence of *vishamashana* as *Nidana* in *vataja grahani*.

### OBSERVATION

Table No. 1: Distribution of patients according to *samanya grahani lakshana*.

<i>Samanya Lakshana</i>	Frequency	Percentage
1. <i>Bhuktameva ama malavimuchanti</i>	80	80%
2. <i>Bhuktameva pakva malavimuchanti</i>	20	20%
3. <i>Rujayukta malavimunchana</i>	50	50%
4. <i>Muhurbaddha Muhur dravamala pravrutti</i>	100	100%

Among 100 taken for the study, all of the them had *Muhurbaddha Muhurdrava mala pravrutti*. among this 80% of the people were associated with *Bhuktameva ama mala pravrutti*, 20% of the people were associated

2. To analyse the effect of *vishamashana* in the etiopathogenesis of *vataja grahani*.
3. To study the *vishamashana* in relation to IBS

### METHODOLOGY

A minimum of 100 subjects suffering from *vataja grahani* were selected for the study, irrespective of their religion, social, economic, and educational statuses at random.

### Study Design

- This is a cross-sectional study
- A special structured case pro forma was prepared with details of questionnaires about the *vishamashana* involved primarily in the causation of the disease and its *lakshanas*.

### Sample size

A total of 100 willing individuals took part in the survey.

with *Bhuktameva pakva malavimuchanti*. Among this 50% of the people were associated with *rujayukta malavimunchana*.

DISTRIBUTION OF SAMANYA LAKSHANA

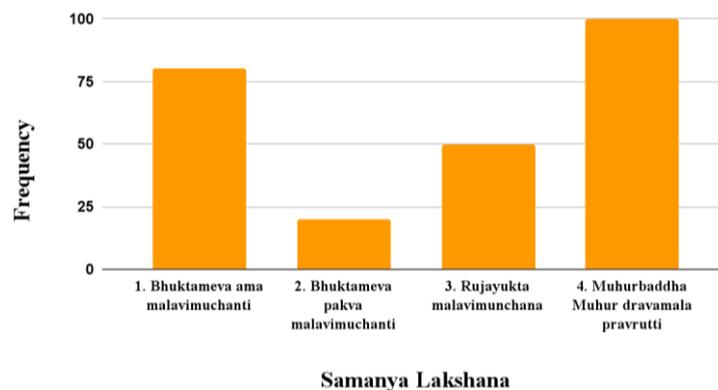


Fig. 2: Distribution of *samanya lakshana* of *Grahani*.

Table No. 2: Distribution of patients according to *vataja grahani lakshana*.

<i>Vataja grahani Lakshana</i>	Frequency	Percentage
1. <i>Dukha pachana of anna</i>	85	85%
2. <i>Shuktapaka</i>	29	29%
3. <i>Kharangata</i>	29	29%
4. <i>Kanta shosha</i>	30	30%
5. <i>Asya shosha</i>	32	32%
6. <i>Trushna</i>	29	29%

7. Timira	20	20%
8.karnayo swana	29	29%
9.parshva ruja	29	29%
10.uru ruja	22	22%
11. vankshan ruja	30	30%
12.Greeva ruja	40	40%
13.visuchika	27	27%
14.hritpida	20	20%
15. karshya	38	38%
16. dourbalya	70	70%
17.vairasya	43	43%
18.parikarthika	55	55%
19.gridri sarvarasanam	34	34%
20. manasa sadan	72	72%
21. jerne jeryati adhmana	69	69%
22. bhukte swastamupeti	86	86%
23.chirat dukaha shushka mala pravrutti	67	67%
24. chirnat drava mala pravrutti	72	72%
26. Ama mala pravrutti	80	80%
27.shabdhayukta mala pravrutti	81	81%
28. phenayukta mala pravrutti	75	75%
29.puna puna mala pravrutti	86	86%

Among 100 patients of *Vataja Grahani*, 85% of the patients had *dukha pachana* of anna, 67% of the people had *chirat dukha mala pravrutti*. 72% of the patients were having *Chirat drava mala pravrutti*.69% of the patients were having *jerne jeryati adhmana*, 86% of the

people were having *bhukte swastamupeti*. 80% of the people were having *ama mala pravrutti*. 81% of the people *shabdhayukata mala pravrutti*. 75% of the people were having *phenayukta mala pravrutti* and 86% of the people were having *puna puna mala pravrutti*.

### DISTRIBUTION OF VATAJA GRAHANI LAKSHANA

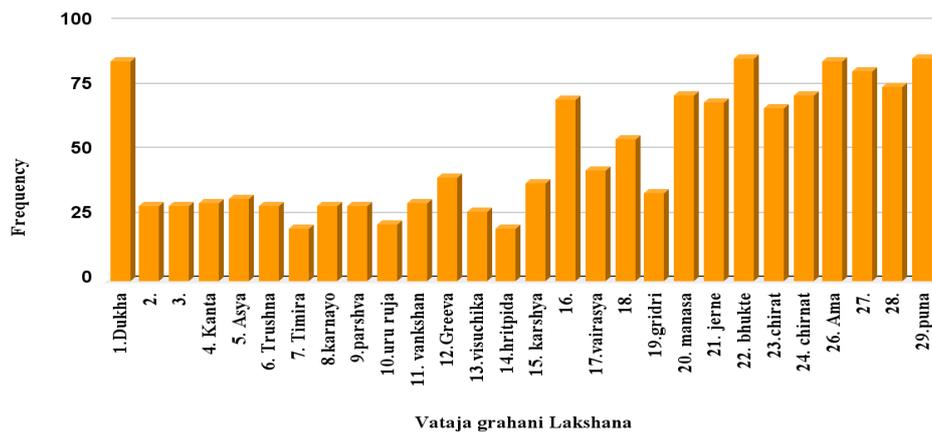


Fig. no. 3: Distribution of patients according to *vataja grahani Lakshana*.

Table No. 3: Observation on Rome III Diagnostic Criteria.

Rome III Diagnostic Criteria	Frequency	Percentage
Recurrent Abdominal Pain or discomfort	97	97%
Pain improves With Defecation	75	75%
Onset with change in Stool Frequency	94	94%
Onset with change in Stool Form	68	68%

Out of 100 patients 97% of the patients were having Recurrent abdominal pain or discomfort, 75% of the patient were having Pain Improves With Defecation,

94% of patients were having Onset with change in Stool Frequency, 68% were having Onset with change in Stool Form.

### DISTRIBUTION OF ROME III DIAGNOSTIC CRITERIA

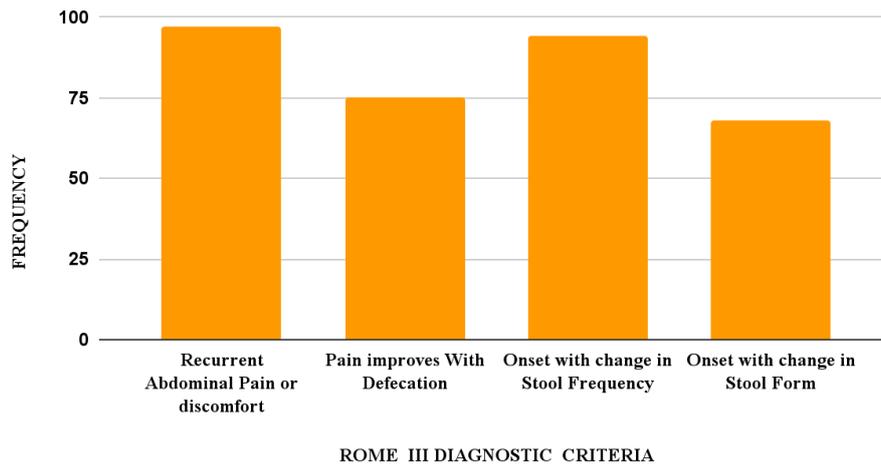


Fig. no. 4: Distribution of patients according to Rome III Diagnostic Criteria.

Table No. 4: Distribution of patients according to the Frequency vs *Vishamashana*.

<i>Vishamashana</i>	Daily	Frequently	Sometimes	Occasionally	Rare/Never
<i>Apraptakala Bhojana</i>	30	23	10	27	0
<i>Ateeta kala Bhojana</i>	18	23	25	19	0
<i>Heena Matra Bhojana</i>	20	15	30	22	0
<i>Atimatra Bhojana</i>	10	25	25	5	0

Table No. 5: Distribution of patients according to the Duration vs *vishamashana*.

<i>Vishamashana</i>	0- 10	>10	>20	>30	Rare/Never
<i>Apraptakala bhojana</i>	50	19	15	6	0
<i>Ateetakala bhojana</i>	45	25	10	5	0
<i>Alpamatra bhojana</i>	46	24	11	6	0
<i>Atimatra bhojana</i>	35	15	10	5	0

#### Discussion on *vishamashana*

##### 1. *Apraptakala Bhojana*

The analysis of indulgence in the intake of food in *Apraptakala* reveals that 90 (90%) of the participants reported engaging in the behavior, while 10% abstained.

##### Duration

- Among these people, 50 (55%) subjects were doing *Apraptakala bhojana* from 0-10 years.
- 19(21%) subjects were taking doing *Apraptakala bhojana* >10 years that is the range of 10 -20 years.
- 15(17%) subjects were doing *Apraptakala bhojana* >20 years which is the range of 20-30 years.
- 6(7%) subjects were doing *Apraptakala bhojana* >30 years.

##### Frequency

- Among these people, 30 (33%) subjects were doing *Apraptakala bhojana* daily.
- 23 (26%) subjects were doing *Apraptakala bhojana* frequently.
- 10(11%) subjects were doing *Apraptakala bhojana* sometimes.
- 27(30%) subjects were doing *Apraptakala bhojana* on Occassionally.

##### Cause for *Aprapta kala bhojana*

- 42(42%) subjects were doing *Apraptakala bhojana* due to social situation.
- 30(33%) subjects were doing *Apraptakala bhojana* due to increased appetite
- Among these people 18(20%) subjects were doing *Apraptakala bhojana* due to Emotional /psychological disturbance.

##### 2. *Ateetakala Bhojana*

The analysis of indulgence in taking meals later than usual reveals that 85 (85%) of the participants reported engaging in the behaviour, while 15% abstained.

##### Duration

- Among these people, 45 (53%) subjects were doing *Ateeta kala bhojana* from 0-10 years.
- 25(29%) subjects were doing *Ateeta kala bhojana* >10 years which is the range of 10 -20 years.
- 10(12%) subjects were doing *Ateeta kala bhojana* >20 years which is the range of 20-30 years.
- 5(6%) subjects were doing *Ateeta kala bhojana* >30 years.

**Frequency**

- Among these people, 18 (21%) subjects were doing *Ateeta kala bhojana* daily.
- 23 (25%) subjects were doing *Ateeta kala bhojana* frequently.
- 25(29%) subjects were doing *Ateeta kala bhojana* sometimes.
- 19(23%) subjects were doing *Ateeta kala bhojana* occasionally.

**Cause for Apraptakala Bhojana**

- Among these people, 35(41%) subjects were doing *Ateeta kala bhojana* due to work schedules.
- 25(29%) subjects were doing *Ateeta kala bhojana* due to time constraint
- 10(12%) subjects were doing *Ateeta kala bhojana* due to time lack of appetite
- 10(12%) subjects were doing *Ateeta kala bhojana* due to social situation.

**3. Alpamatra Bhojana**

The analysis of indulgence in taking meals later than usual reveals that 87 (87%) of the participants reported engaging in the behaviour, while 13% abstained.

**Duration**

- Among these people, 46(53%) subjects have been taking food less than usual for 0-10 years.
- 24(27%) subjects were taking food less than usual >10 years that is the range of 10 -20 years.
- 11(13%) subjects were taking food less than usual >20 years that is the range of 20-30 years.
- 6(7%) subjects were taking food less than usual >30 years.

**Frequency**

- Among these people, 20 (23%) subjects were taking food less than usual daily.
- 15(17%)subjects were taking food less than usual frequently.
- 30 (34%) subjects were taking food less than usual sometimes.
- 22(26%)subjects were taking food less than usual occasionally

**Cause for Alpamatra Bhojana**

Among these people 27(31%) subjects were subjects were taking food less than usual due to time constraints.

- 20(23%) subjects were taking food less than usual due to work schedules.
- 20(23%) subjects were taking food less than usual due to emotional disturbance.
- 10(12%) subjects were taking food less than usual due to social situations.

**4. Atimatra Bhojana**

The analysis of indulgence in taking meals later than usual reveals that 65 (65%) of the participants reported engaging in the behaviour, while 35% abstained.

**Duration**

- Among these people, 35 (54%) subjects were taking food more than usual for 0-10 years.
- 15(23%) subjects were taking food more than usual >10 years that is the range of 10 -20 years.
- 10(15%) subjects were taking food more than usual >20 years in the range of 20-30 years.
- 5(8%) subjects were taking food more than usual >30 years.

**Frequency**

- Among these people, 10(15%) subjects were taking food more than usual daily.
- 25 (38%) subjects were taking food more than usual frequently.
- 25(38%) subjects were taking food more than usual sometimes.
- 5(9%) subjects were taking food more than usual occasionally.

**Cause for Atimatra Bhojana**

- Among these people 15(23%) subjects were subjects were taking food less than usual due to increased appetite.
- 26(40%) subjects were taking food more than usual due to Emotional disturbance.
- 24(37%) subjects were taking food more than usual due to social situation

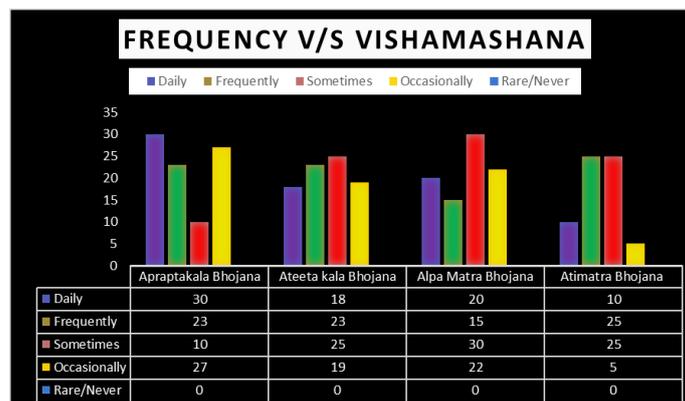


Fig. No. 5: Distribution of patients according to the Frequency vs Vishamashana.

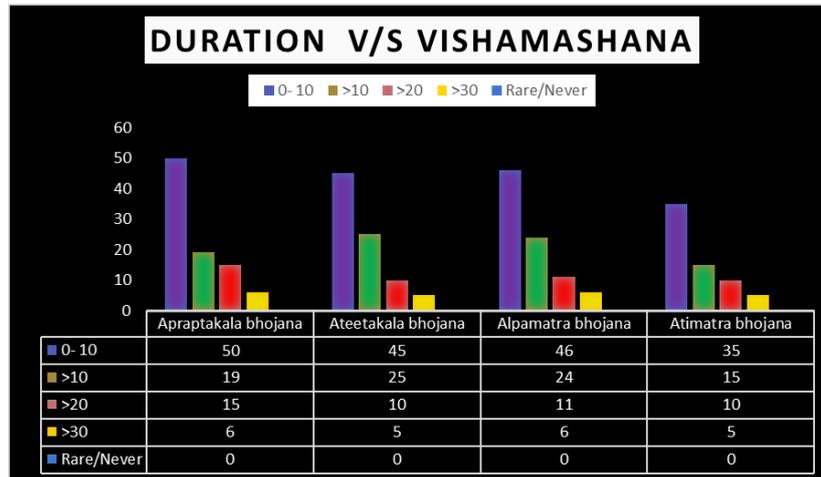


Fig. No. 6: Distribution of patients according to the Duration vs vishamashana.

**OBSERVATION ON VISHAMASHANA**

Table no. 6: Distribution of Vishamashana.

Matra	Aprapta Kala	Ateetakala	Both Akala and Ateeta kala
Alpa matra	5	6	76
Atimatra	3	4	58
Both alpa and atimatra	2	3	85

- Out of 100 patients, 90 were indulging in taking *Alpa Matra*, in that
  - 5 patients were found to be taking in *aprapta kala*
  - 6 patients were found to be taking in *Ateeta kala*
  - 76 patients were found to be taking in both *Aprapta* and *Ateetakala*
- Out of 100 patients, 88 patients were found to be indulging in *Atimatra*, in that
  - 3 patients were found to be taking in *Aprapta kala*
  - 4 patients were found to be taking in *Ateetakala*
- Out of 100 patients, 90 patients were found to be taking both *Alpamatra* and *atimatra*, in that
  - 2 patients were taking in *aprapta kala*
  - 3 patients were found to be taking in *ateetakala*
  - 85 patients were found to be taking in both *Aprapta* and *Ateetakala*

**DISTRIBUTION OF VISAHMASHANA**

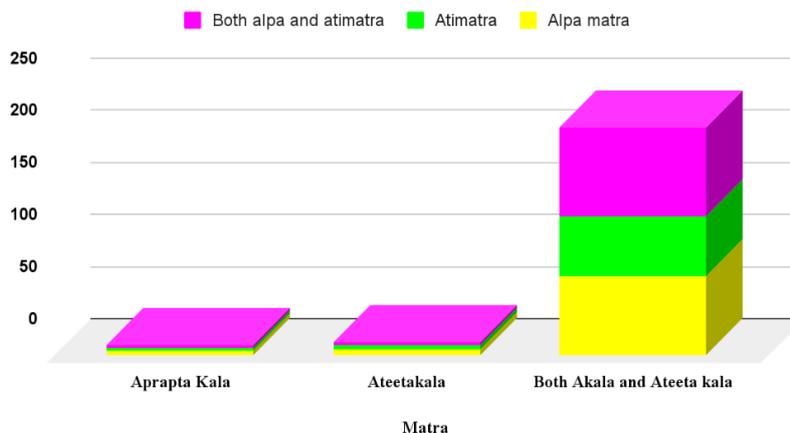


Fig. No. 7: Distribution of Vishamashana.

**DISCUSSION ON AHARA VRITTANTA**

**Ahara**

Out of 100 subjects studied in this series, 60 subjects (86.67%) were having mixed diet and the remaining 40

subjects (40%) had a vegetarian diet. The majority of the subjects were taking a vegetarian diet.

### Rasa of Ahara

In the present study, the maximum number of subjects i.e. subjects It was reported that 22% of the total patients were taking *katu lavana pradhana ahara rasa*, predominantly *Ahara*. 15% of the total patients were taking *Madhura amla pradhana ahara*. *Madhura Rasa* causes *Agnidaurbalya* (weakness of digestive power) and *Anannabhilasha* (aversion to food). The Majority of subjects were consuming *katulavaana pradhana ahara* causes *vata prakopa*, next majority of the people consuming *Amla* and *Madhura Rasa*. Usually, *Amla Rasa* will lead to *Vidaha*, whereas *Madhura Rasa* is a *Guru* in nature which is difficult to digest. Both these *Rasa* lead to the formation of *Vidaha* nature, which in turn causes *Agni Dushti* which leads to the disease *vata pradhana grahani*.

### Guna of Ahara

Nearly 59% of the patients were taking *Ruksha*, *Ushna*, *Tikshna Pradhana Ahara*, 22% were taking *Snigdha*, *sheeta*, *guru Pradhana* and 22% *snigha*, *ushana*, *Guru Pradhana Ahara*. *Ruksha-lagu Aahara* causes *vata prakopa*, *Atiushna-Tikshna Ahara* causes *Drava Gunayukta Pitta Prakopa* leads to *Agni mandya*.

### Discussion on viharaja vrittanta

Among 100 subjects 10 (10%) were doing *Ativyyama*, 60 (60%) subjects were doing *ratrijagarana*, and 65(65%) subjects were doing *Divaswapna*.

### Discussion on Vyasana

**Tea;** Taking tea in between meals with biscuits is considered as a *akalabhojana* which is a part of *vishamashana*, and act as a significant cause of *agni dusti* that leads to *vataja grahani*.

**Coffee:** Taking coffee in between meals is considered as a *akalabhojana* which is a part of *vishamashana*, and act as a significant cause of *agni dusti* that leads to *vataja grahani*.

**Alcohol:** In this study, 20% had occasional habit of consuming alcohol and 8% had a habit of consuming alcohol daily. The time duration of consumption was also long i.e., more than 30 years. Taking any liquid food after having food is strictly contraindicated by Charaka which is mentioned as cause for *Agni mandya*.

It can also be said that these substances are used by the individual to relieve tension. But it whips up the sympathetic nervous system unnecessarily when taken in larger quantities on a regular basis. It spoils the whole digestive system. Nicotine absorbed from the tracheobronchial tree due to tobacco smoking stimulates the production of neuro humors.

**Agni:** The majority of subjects had *Mandagni*, which is the main causative factor for the formation of *Ama*. Ayurveda highlights the role of impaired *Agni* in the pathogenesis of all diseases. Here also the derangement

of *Agni* is taken as one of the important factors for the development of IBS.

**Koshta:** Most of the subjects i.e. 65 subjects (65%) had *Mrudu Koshta*, while 30 subjects (30%) had *Madhyama Koshta* and 5 subjects (5%) had *Kroora Koshta*. The majority had *Mrudu Koshta*, which shows that they had *Pitta Dushti* mainly *Pachaka Pitta Dushti* which has a main role in the manifestation of the disease.

**Nidra:** *Swapnaviparyaya* is one of the important causes found for *Agnimandya* in the study as elaborated in classics. Majority were reported with *Vishama Nidra* which may be due to over thinking about their illness, as well as due to stress and tension.

**Mutra;** *Ati Mutrapravritti* (polyuria) due to *Ama* formation which is the sequel of *Agnimandya*.

**Deha Prakruti:** All the subjects had *Dwandaja Deha Prakruti*. Out of the 100 subjects, the majority (56%) exhibited dominance of *Vata Pittaja Prakruti*, followed by 28% with dominance of *Pitta Kaphaja Prakruti*, and 16% with dominance of *Vata Kaphaja Prakruti*.

**Sara:** The study found that 75% of the subjects had *Madhyama Sara*, while 25% had *Avara Sara*. The majority exhibited *Madhyama Sara*, which could be attributed to the chronic nature of the disease and the potential lack of proper *Sara* formation in the body.

### Samhanana

A maximum of 71 subjects (71%) had *Madhyama Samhanana*, while 29 subjects (29%) had *Avara Samhanana*.

### Satva

In this study, 50 subjects (50%) had *Madhyama Satva*, where as 40 subjects (40%) had *Avara Satva* and 10% *Pravara satva*. Majority were having *Madhyama Satva*. *Satva* plays a major role in the manifestation of IBS as it is considered as psychosomatic disorder. When a person is having a *Madhyama* or *Avara Satva*, he may indulge in *Vishamashana* which causes the *agnidusti*, as well as they cannot control the *Mano bhavas* like *Krodha*, *Vishada* etc which is playing major role in IBS. So this study proves that the people having *Madhyama* and *Avara Satva* are more prone to develop IBS.

### Satmya

A maximum number of subjects, i.e. 80 subjects (80%) were adopted with *Madhyama Satmya*, while 12 subjects (12%) were adopted with *Avara Satmya*. 8 subjects (8%) were adopted to *Pravara Satmya*. Nothing can be concluded on the role of *Satmya* in the disease pathology. But sometimes it can be said that some patient develops an aversion towards some tastes as it causes discomfort and sometimes leads to an increase in their problems.

**Abhyavaharana Shakti**

In this study, majority of the subjects, i.e. 60 subjects (60%) were having *Madhyama Abhyavaharana Shakti*, where as 40 subjects (40%) were having *Avara Abhyavaharana Shakti*. Majority of people were having *Madhyama Abhyavaharana Shakti*. Usually IBS patients have tendency to rush to the toilet just after the intake of food. From the present study we can understand that they were trying to reduce the quantity of food, so that they can ease themselves.

**Jarana Shakti**

A maximum number of subjects, i.e. subjects 68 (68%) were having *Heena Jarana Shakti*, whereas remaining 32 subjects (32%) had *Madyama Jarana Shakti*. In the present clinical study majority were having *Heena Jarana Shakti*., as a results *Agni dusti*.

**Vyayama Shakti**

In this study, the majority of subjects, i.e. 50 subjects (50%) had *Madhyama Vyayama Shakti*, while 20 subjects (20%) had *Avara Vyayama Shakti* and 20 subjects (20%) had *Pravara Vyayama Shakti*.

**Pramana**

47 subjects (47%) were thin-built, whereas 28 subjects (28%) were presented with *Madyama Pramana*, and 25(25%) subjects were overbuilt.

**Manasa Bhava**

Almost all the subjects i.e. 66 subjects (66%) had *Chinta Mano Bhava*, 62 subjects (62%) had *Shoka Mano Bhava*, 36 subjects (36%) had *Vishada Mano Bhava*, 23 subjects (23%) had *Bhaya Mano Bhava*, whereas the least i.e.20 subjects (20%) were having *Krodha Mano Bhava*.

Ayurvedic texts mention that *Atichinta* leads to the vitiation of *pitta, vata* and brings *rasavahasrotodusti*. *Chinta* (Worry) converting to stress is a main causative factor for many psychosomatic disorders. Harvard Mental Health Letter notes the relationship of psychological or mental stress with gastrointestinal distress and stress can trigger and worsen gastrointestinal symptoms and vice-versa. This is bidirectional activity.<sup>[245]</sup>

*Krodha* (Anger) is associated with emotional things as more emotional thinking over subjects leads to adrenaline release. Thereby Adrenaline causes an increase in systolic blood pressure and a decrease in diastolic blood pressure, ultimately resulting in increased heartbeats.<sup>[1]</sup> This makes anyone tense commuting to anger. Anger is strongly associated with quality of life. Researches show the negative impact of anger on irritable bowel syndrome (IBS).<sup>[2]</sup>

*Bhaya* (Fear) is conducive to stress, depression, hopelessness and anxiety. It's a very well-known fact that the central nervous system communicates with the enteric nervous system of the gut. This enteric nervous

system plays an important role in gut physiology through secretions and motility.<sup>[3]</sup>

*Shoka* (Grief) is a mood disorder. Irritable bowel syndrome is associated with psychological disorders.<sup>[4]</sup> The effect of *Kaama* (greediness) can be attributed to a group of hormonal imbalances. These hormones can directly tamper with the normalcy of the GI tract. Other than gut hormones viz., gastrin, motilin, cholecystokinin and secretin, sex hormones like testosterone and estrogen are also related to IBS.

This observation shows that the majority of the subjects had negative *Mano Bhavas* which in turn causes *Mano Dushti*, leading to *Agni Dushti* and *Dosha Prakopa*, leading to the disease manifestation. Many subjects were overthinking about their illness, so worried, that some even went into depression. This shows the psychosomatic nature of the disease. It indicates the effect of *Manasika bhavas* on the patient's mind and as one of the causes of the development of the disease. A careful and elicited history revealed that these patients were not only over-anxious about their disease but were highly anxious about their personalities in general life.

**Discussion on Grahani roga**

*Grahani* is the disease of *Annavaaha* and *Purishavaha srotas*, caused by the *agnidusti*. Based on the involvement of *Dosha Grahani* has been classified as *vataja, Pittaja, Kaphaja, Sannipataja, Sangrahai, Gatiyantra Grahani* and Based on *Nidana Grahani* has been classified as *Svatantra* and *Paratantra Grahani*.

**Discussion on Nidana of Vataja Grahani**

*Ati Katu, Tikta bhojana, Kashaya bhojana*: *Ati sevana* of *Katu, Tikta* and *Kashaya rasa* causes *vata prakopa, Agni dushti* and *Anna vaha sroto dushti* causing *Vataja Grahani roga*. *Kashaya rasa* with its *Ruksa, Laghu* and *sheeta guna*, increases *vata* causes *Vishtambha, Vata mutra Purisha grahana* and *Admana*.

*Ruksha bhojana*: *Gunas* opposite of *snigdha guna* can be considered for *Ruksha bhojana*; it causes *Agnimandya, Chirat jarana, vatavarodha* and *balahani*.<sup>[5]</sup>

*Shitala bhojana*: *gunas* opposite of *Ushnabhajana* can be considered for *Shita bhojana*; it causes *Chirat jarana* of *Ahara, Agnimandya, vatavarodha*.<sup>[6]</sup>

*Pramitashana*: *Alpabhajana* or consuming less quantity food is *pramitashana*, causes *vataprakpa* and it might contribute to *Grahani roga* samprapti.

*Anashana*: *Anashana* means *Upavasa* i.e., not taking food, it causes *vataprakopa* and *agnimandya* leading to the *Grahani roga*.

*Sandustabhajana*: *Samyoga viruddha bhojana* is *sandhusta bhojana*, causes *vataprakopa* and

*agnimandya*.<sup>[7]</sup> *viruddaahara* also causes *Grahani gada*, *Kusta*, *Amlapitta* etc *vyadhis*.<sup>[8]</sup>

**Advagamana:** *Atimarga gamana* or walking for long distance is *advagamana*<sup>[9]</sup> Causes *vata prakopa* and might contribute to *Grahani roga*.

**Veganigrahana:** Withholding the urges, mainly *Mutra* and *Pureesha*, causes *Apanavata dusti*<sup>[10]</sup> *Dushta apana vata* may cause *Purishavaha sroto dushti* causing *Badda mala* or *drava mala*.

**Maithuna:** *Ati Maithuna* causes *Dhatukshaya*, *Ojakshaya*, *Balakshaya* and *vataprakopa*.

#### Discussion on Lakshanas of Vataja Grahani

**1. Dukhapachana of Anna-**Among 100 patients 85(85%) of the patients are experiencing difficulty in the digestion of food. As most of the patients were having *mandaagni* they cant able to digest the food resulting in *Dukhapachana of food*.

**1. Chirat, Sadukha and Shushka mala pravrutti:** Among 100 patients 67(67%) subjects were having the symptoms.

In *Vataja Grahani roga* due to the predominance of *ruksha guna*, *Vata* will cause dryness in the *koshta* mainly in *Pakwashaya* leading to the formation of hard stools or *Shushka mala* which requires straining while defecation leading to *Chirat* and *Dukhayukta mala pravrutti* or Painful defecation. These symptoms are consistent with Constipation predominant IBS, where Painful defecation with hard stools is seen, this is because of reduced intestinal motility causing long-term retention of stool in the large intestine where all the water content in the stool is absorbed leading to the formation of hard stools.

#### 2. Drava, Ama, Phenila mala pravrutti

*Chirat drava mala pravrutti*- 72(72%) of the patients are having *chirat drava mala pravrutti*.

*Ama mala pravrutti* -85(85%) of the patients are having *Ama mala pravrutti*.

*Phena mala pravrutti* - 75(75%) of the patients are having *phenamala pravrutti*.

In *Vataja Grahani*, *Agni mandhya* causes partial digestion of food leading to the *ama* formation which mixes with *mala* causing *sama mala*. when the *Chala guna* of *Vata* is increased it increases intestinal peristalsis leading to the rapid evacuation of stool, as stool stays for very little time in the intestine there will be very minimal or no absorption of water takes place causing *Drava mala pravrutti* and *Dravata* causes water bubbles in the stool causing *phenila mala*. These symptoms are consistent with Diarrhoea predominant IBS, where watery stools are seen, this is because of the increased intestinal peristalsis and excessive production of mucus causing mucus-mixed stool.

#### 2. Kanta Asya Shosha

*kanta shosha*- 30(30%) of the patients are having *talv shosha*.

*Asya shosha*- 32(32%) of the patients are having *asya shosha*

This *lakshana* can be attributed to the *Ruksha guna* of *vata dosha* which is predominantly involved. If we consider contemporary science, dryness of mouth in *Vataja Grahani* might be because of dehydration occurring in the disease due to *Atidramala pravrutti*.

**3. Timira:** 20(20%) of the patients are having *Timira* According to *Vijayarakshita timira* is *mandadrushita*.<sup>[11]</sup> As *chakshurendriya* is *agni mahabhuta pradhanya indriya*, *timira* might be caused by the longstanding *agni mandya* in the *Grahani*.

**4. Karnakshveda:** 29(29%) of the patients are having *Karnakshveda*

*Karnakshveda* is hearing of *venughoshavat Shabda*. And it is caused by the vitiated *vata dosha*. Depletion in body fluids also causes a ringing sound in the ears. It can also be attributed to the psychosomatic nature of the disease.

#### 5. Parshva, Vankshana, Griva, Hrit, shula

*Parshva shula* -29(29%) of the patients were having *parshwshula*

*Vankshana shula*-30(30%) of the patients were having *vankshana shula*

*Griva ruja*- 40(40%) of the patients are having *greeva ruja*

*Hritpada*- 20(20%) of the patients are having *Hritpada Shula* is the *lakshana* of *Prakupita vata*. This might be because of electrolyte imbalance caused by *atidravamala pravrutti*. And also because of the reduction in vitamins caused by the reduced intake of food.

**6. Udarashula:** *Prakupita vata* causes *udarashula*, abnormal motility of GI system will cause spasmodic pain in the abdomen especially after the intake of food.

**6. Akshut:** *Agnimandya* is the main cause of *akshut* or loss of appetite.

**7. Parikartika:**55 (55%) of the patients having *parikartika* Injury to the skin around the anus caused by *badda*, *shushka mala* or *Ati drava mala pravrutti* causes *Parikartika* in *Grahani roga*.

**8. Kharangata:** 29(29%) of the patients were having *kharangata*

According to *Vijayarakshita kharangata* or Dryness of the skin occurs because of the *shoshana* of *Tvak Sneha* by *Vata dosha*.<sup>[12]</sup> Dryness of the skin is the sign of a Dehydrated state which is commonly seen in Diarrhoea and in the case of IBS as there will loss of more fluid because of the increased frequency of the stool dehydration occurs rapidly causing dry skin.

### 9. *Karshya and Dourbalya*

*Karshya*- 38(38%) of the patients were *karshya*  
*Dourbalya*- 70(70%) of the patients were having *dourbalya*

*Karshya* is one of the *lakshanas* of *Vata vriddi*. In *Grahani roga Annagrahana, Pachana, Vivechana* functions of *Samana vata* are impaired causing partial or improper digestion of food leading to *rasa dushti* and *Amotpatti*, this process hampers the *uttarottara dhatu poshana* causing *Dhatu kshaya, Karshya* and *Dourbalya*.

**10. *Mano sada*:** 72(72%) of the patients were having *Mano sada Vishada* is disappointed or feeling low, *Vata* is the one that controls *mana*, it is the *Niyanta, Parneta* and *Preraka* of *mana*.<sup>[13]</sup> When *Dushti* of *Vatadosha* occurs, it disturbs the functions of the *mana* and causes *mano sada* and other diseases. IBS is one of the Psychosomatic diseases and psychological involvement in the IBS is attributed to the impaired functioning of serotonin.

### Discussion on Vishamashana

1. *Aprapta Kala Bhojana*, the end product of the previously consumed and partially digested food mixes with the consumed indigested food which spoils the whole mixture and converts it into *Aama* which aggravates all three *Doshas*.

These aggravated *Doshas* produce *Agni-Vaishmya*, which further leads to *agni dusti*. Thus *dushita agni* vitiates *grahani* due to *Ashraya Ashrayi sambandha*. Finally leads to *vata pradhana Grahani*

2. *Ateetakala Bhojana* -Many people nowadays have busy jobs or academic commitments, resulting in delayed meals. Extended work hours, shift work, or unpredictable schedules pose challenges in sticking to a regular eating routine.

In numerous urban areas, dining late at night has become customary, especially with the proliferation of restaurants and late-night food delivery services. Late-night social gatherings and events also contribute to the shift towards delayed eating habits.

The growing amount of time spent in front of screens, be it for leisure, work, or social networking, disrupts regular sleep and eating schedules, causing individuals to either skip meals or eat later than usual, particularly in the evenings.

**Stress and Mental Health Problems:** Stress, anxiety, and other mental health problems can disturb normal eating routines. Emotional turmoil frequently results in either missing meals or postponing them, especially when people eat as a response to stress.

**Unhealthy Eating Patterns and Delaying:** Certain people might not have a structured eating schedule, resulting in postponing food preparation or consumption. They might put off eating until they are very hungry, typically later in

the day. Evening meals are seen as social gatherings. This can result in a higher number of people eating later than usual.

Inadequate time management often leads to delayed meal times for many individuals. Prioritizing work or leisure activities over timely meals can result in irregular eating schedules. Similarly, irregular sleeping patterns caused by shift work or sleep disorders can disrupt circadian rhythms and lead to late-night eating or delayed meal times.

Late eating decreases glucose tolerance, resting energy expenditure, and carbohydrate oxidation as compared to early eating. Besides, the cortisol profile was blunted for late eating as compared to early eating, similar to that found under acute stress situations.<sup>[14]</sup> Eating late also affected the daily rhythms of peripheral temperature, towards a similar pattern to that found in metabolic alterations.

**Impact of food timing on human salivary microbiota.** There is a significant diurnal rhythm in saliva diversity across both early and late eating conditions. Moreover, late eating inverted the daily rhythm of salivary microbiota diversity as compared to early eating. This may have deleterious effects on the metabolism of the host.<sup>[15]</sup> It has been demonstrated that saliva bacteria, such as oral Fusobacteria, which changes with food timing, have an impact on the intestine and are related to Chron's disease and intestinal inflammatory diseases.<sup>[16]</sup>

Circadian disruption leads to various changes in gut function, such as increased gut permeability, which can cause dysfunction of the gut barrier and modify the composition of the gut microbiome.<sup>[17,18]</sup>

Any disruption or alteration in the circadian rhythm can significantly impact the rhythmicity of the gut microbiota, thereby leading to harmful effects on the host's overall health.<sup>[19]</sup> Meal timing can have a major effect on the gut microbiota, both in animals and humans. The gut microbiota of mammals exhibits daily fluctuations regulated by the rhythmic patterns of food intake. The timing of food intake influences the daily fluctuations in the composition of the microbiota, and it is observed that the rhythmicity of the microbiota is a dynamic process that can be disrupted or restored in response to changes in feeding behaviors. Consequently, the timing of feeding serves as a connection between the circadian patterns in host behavior and the diurnal variations in the composition and role of the microbiota.<sup>[20,21]</sup> Furthermore, circadian misalignment in humans can modify the composition of the microbiota, potentially leading to an increase in proinflammatory taxa and a decrease in functional pathways mediated by the microbiota.<sup>[22]</sup> One of the affected pathways is the biosynthesis of tryptophan, which is crucial for serotonin production.<sup>[23]</sup>

3. *Alpamatra bhojana* causes loss of *bala*, *Ojas* and *vataprakopa*.

4. *Atimatra ahara* causes vitiation of *Tridosha* at the same time leads to *Alasaka*, *Visuchika*. After taking excessive solid *Ahara* if a person takes excessive liquid *Ahara*, this increased quantity of *Ahara* causes *Tridosha Prakopa*.<sup>[24]</sup>

It demonstrates that the majority of patients were found to be engaging in both *Alpa*(76%) and *Atimatra*(58%) in both *Aprapta* and *Ateeta kala* (85%). A relatively small proportion of individuals were observed consuming meals during *Sama Matra* and *Kala*. Taking both *alpa* and *atimatra* in *Aprapta* and *Ateeta kala* act as a *vishama* to *agni*. *Agni* becomes vitiated due to the *vishama* nature of intake of food both with respect to *matra* and *kala*. As *vishama* nature of the intake of *Ahara* causes an increase in *vata prakopa*. Both vitiated *Agni* and *vata prakopa* cause *grahani dusti* and due to long exposure to *vishamashana* finally leads *vata dosha pradhana grahani*.

*Vishamashana* has been described as a causative factor for *Annavaha Srotodushiti*, which has been revalidated by the study. *Rasvaha Srotas* is directly related to *Anna* and *Annapana Vidhi*. Hence, irregularities in the diet will result in the vitiation of *Rasavaha Srotas*. *Vishamashana* causes *Agni Dushti* as described earlier. *Agni Dushti* affects the quality and quantity of *Rasa Dhatu* which further leads to *Rasavaha Srotodushiti*. Because of *Agnivaishmya*, *Agni* is unable to the diet digest properly. In the case of *Aprapta Kala Bhojana*, the end product of the previously consumed and partially digested food mixes with the consumed indigested food which spoils the whole mixture and converts it into *Aama* which aggravates all three *Doshas*. These aggravated *Doshas* produce *Agni-Vaishmya*, which further leads toward *Ajeerna* (indigestion). If this process continues for a longer time, it produces the condition of *Amavisha*, which when combined with *Dosha-Dhatu-Mala* produces various diseases.

*Ateetaa kala* means food not taken after the urge of hunger is formed. Due to *Ateetakala Bhojana*, *vata* gets *prakopa* and leads to *Apahate anile* (Disturbs the function of *agni*), and makes it difficult to digest the food and leads to *kukshir adhnama*, *atopa* and *agnisada*. suppression of hunger occurs resulting in *Karshya*, *Vaivarnya*, body ache, etc. It is now proved that gastric secretion starts at the regular time of eating and if stomach remains empty at that time, that secretion remains unused in the stomach. As it becomes acidic, it harms the stomach tissue. On the other hand, when food reaches in stomach after passing the regular time of food, the amount of secretion will be much less or absent which is due to the activation of only pressure receptors of the stomach. Insufficient quantity of this secretion leads to improper digestion which ultimately results in many digestive disorders. This is the reason for the presence of complaints such as *Avipaka*, *Gaurava*,

*Aruchi*, unsatisfactory *Malpravritti* etc. in the majority of persons.

As a result of frequent, long-standing *Alpamatra* and *Atimatra Bhojana*, in *Aprapta* and *Ateetakala*, leading to *Agnimandya* that affects *Rasavaha* and *Annavaha Srotas* along with *vishama* nature of *Agni* leads to *vata prakopa*. This results in *vata dosha pradana grahani*, i.e *vataja grahani*.

## CONCLUSION

- *Grahani roga* represents a group of digestive disorders. Impaired *Agni* and *samana vata*, *pachaka pitta*, *kledaka kapha* are the most predominant factors involved in the pathogenesis of *Grahani*.
- Among the types of *Grahani*, the clinical features of *vataja Grahani* have at most similarities with the clinical features of irritable bowel syndrome.
- *Samana vata dushti* in *Grahani*, is correlated and understood with the abnormal gut motor activity, and the *Agni dushti* is correlated with abnormal gut sensory activity in IBS.
- In the present study it is found that *ati sevana* of *katulavana rasa pradhana ahara*, *ati sevana* of *ruksha ushna teekshana guna pradhana ahara* in *Amatra* and in *Akala* is seen.
- Among the *lakshana's* of *vataja grahani* majority of the patients experienced *Dukha pachana* of *anna* (difficult in digestion of food), due to the result of *dushita agni*.
- In this study majority of the patients had *Chirat shushka dukha*, and *chirat drava mala pravritti*, due to the involvement of *vata* and *pitta* and *punaha punaha mala pravritti*, *shabda phenayukta mala pravritti*, *Admana* as a result of *prakupita vata*.
- By this observational study, it is found that everyone taken for the study were found to be indulging in *vishamashana*, that is the majority of the patients were found to be taking both *Alpa* and *Ati matra Ahara* in both *Aprapta* and *Ateetakaala*, that becomes *vishama matra* and *vishama kaala* and act as *vishama* to *Agni*, as a result of this *Agni* becomes *vaishmya*.
- By this study it becomes evident that taking *Ahara* in *vishama matra* in *vishama kala* has a more significant effect on causing *Agni dushti* than taking *alpa* or *atimatra* alone.
- *Ati sevana* of *katulavana rasa pradhana ahara*, *ati sevana* of *ruksha ushna teekshana guna pradhana ahara* in *Amatra* and in *Akala* causes *vatopahata Agnidusti* that is *Bahuvata janya agnimandya*. Further the *dushita Agni* vitiates *grahani* due to *Adhara Adeya sambhanda* and finally leads to *vata pradhana grahani roga*.
- The irregularity of intake of *Ahara* both in the *matra* and *kala*, combined with other *Vata*-aggravating factors, leads to the aggravation of *Vata dosha*. This aggravated *Vata* vitiates *Agni*, impairing digestion

and metabolism. The imbalance in *Agni* contribute to the development of *Vataja Grahani*.

- In the current study the prevalence of *vishamashana* is found to be 85%.
- It is concluded from the present study that indulging in *Vishamashana* is identified as primary *nidana* that lead to *Agni* vitiation resulting in *vataja grahani*.

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