

## CLINICAL STUDY ON PIPPALYASAVA AND SURANAVATAKA IN GRAHANI ROGA (IRRITABLE BOWEL SYNDROME)

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### ABSTRACT

The present study was done to evaluate the combined effect of *Pippalyasava* and *Surana Vataka* in the management of *Grahani Roga* with special reference to irritable bowel syndrome. *GrahaniRoga* is one among the *Mahagadas*. *Grahani* is the seat of *JatharAgni* (digestive fire) and is supported and nourished by the strength of *Agni*. Drugs with *Deepana* (which enhances digestive power) and *Pachana* (digestive) qualities need to be used in treating the *GrahaniRoga*. *Pippalyasava* and *SuranaVataka* are indicated in *GrahaniRoga*. The ingredients of these two preparations are known to be having the properties capable of correcting the *Agni*. Conditions like *UdaraShoola* (abdominal pain), *Ajeerna* (indigestion), *Aruchi* (anorexia), *Adhmana* (distention of abdomen), *Alasya* (fatigue), *Vibaddha Mala Pravruthi* and *Abaddha Mala Pravruthi* (irregular bowel habits) have been described under the heading of *GrahaniRoga*. The present study is an outpatient based clinical trial with pre and post test design. 30 patients of *Grahani Roga* (IBS), *Pippalyasava* and *SuranaVataka* were given for 30 days and reviewed at the interval of 15 days during treatment. Patients between 16 – 60 years of age group were the inclusion criteria. Patients suffering from other systemic illnesses like diabetes mellitus, hypertension etc was excluded from the study. Total 32 patients are registered, out of which 30 patients completed the study and 2 patients discontinued the medicine in between. The overall effect of therapies showed that 81.9% improvement in symptoms. The combination of *Pippalyasava* and *SuranaVataka* have given statistically highly significant results, thus these drugs can be used effectively in the management of *GrahaniRoga*.

**Keywords:** *GrahaniRoga*, irritable bowel syndrome, *Pippalyasava*, *SuranaVataka*, *Jatharagni*

### INTRODUCTION

“*Rogaa: sarvepimandaagnou*”- *GrahaniRoga* is caused due to *Mandagni* (decreased digestive power). *Grahani* is the seat of *Jatharagni*<sup>1</sup> and is supported and nourished by the strength of *Agni*. *Agni* is to be corrected in all stages of *GrahaniRoga*. *Grahani* is situated above the *Nabhi* region and is supported and nourished by the strength of *Agni*. Normally, it receives the ingested food, which is

retained by it by restraining the downward movement. After digestion it releases the food into the next *Ashayai*. e. *Pakvashaya*. In abnormal conditions due to weakness of *Agni*, it gets vitiated and releases food in its undigested form.<sup>2</sup>

*GrahaniRoga* is a disease of great clinical relevance in the modern era because of its direct link with the improper food habits and stressful lifestyle of the present times. In modern parlance, this disease can

be understood under the context of irritable bowel syndrome (IBS). It is one of the leading health issues in the community.

As *GrahaniRogais* caused due to *AgniMandya*, the main line of treatment is to correct the *AgniDushti* by following *Langhana* and administering drugs which are *Deepana* and *Pachana* in action<sup>3</sup>. *Pippalyasava* contains drugs which are predominantly *Katu* and *Tikta* in *Rasa* (taste), *Laghu* and *Ruksha* in *Guna* (property), *Katu* in *Vipaka* and *Ushna* in *Virya* (potency). They mainly act as *Deepana* and *Pachana* and thus correct the *AgniMandya* and the *Dusti* of the *Anna* and *PurishavahaSrotas*. *SuranaVataka* is the other drug selected for the study. It also contains drugs which are *Deepana-Pachana*, *Grahi* and is specifically indicated in *Grahani*. The combination of *Pippalyasava* and *SuranaVataka* have been selected so as to gain a combined and potentiated effect on *GrahaniRogaby* facilitating easy absorption and faster action of the drugs by targeting *AgniDushti* as well as *Srotodusti* in the *Anna* and *PurishavahaSrotas*. Hence this study is planned to evaluate the efficacy of above said combination.

**Objectives of the study:** To study the combined effect of *Pippalyasava* and *SuranaVataka* in the management of *GrahaniRoga* with special reference to irritable bowel syndrome.

## **MATERIALS AND METHODS**

**Source of data:** 30 established cases of *GrahaniRoga* from outpatient and in-patient as well as cases referred by other physicians of other departments were included in this study.

**Diagnostic criteria:** The patients with the complaints of *Grahani Roga* i.e.

*Muhurbaddha* or *Drava Malapravruthi*, *Aruchi*, *UdaraShoola*, *Vistambha*, *Praseka*, *Gourava* etc. were selected for the study.

**Inclusion criteria:** Patients between 16 – 60 years of age group.

**Exclusion criteria:** Patients suffering from acute diarrhoea, intestinal tuberculosis, ulcerative colitis, gastric and peptic ulcer, diabetes mellitus, hypertension, other forms of colitis like Behcet's disease, collagenous colitis, colitis associated with significant complications like haemorrhage, perforation, strictures, colonic cancer, toxic mega colon, haemolitisanaemia, and liver xerosis.

**Research design:** The clinical study was openlabel, single arm, with pre and post test design conducted at outpatient department level in tertiary *Ayurveda* hospital located in district quarters in southern India. 30 patients of *GrahaniRoga*, *Pippalyasava* and *SuranaVataka* were given for 30 days and reviewed at the interval of 15 days.

Medicine 1 and dose: *Pippalyasava* - 20 ml thrice a day after food

Medicine 2 and dose: *SuranaVataka* - 1 tablet (2 Gms each) along with *Pippalyasava*, thrice a day after food.

Duration: 1 month

**Assessment criteria:** Results were assessed on the basis of changes in the signs and symptoms of the diseases mentioned earlier.

**Statistical methods:** The present study is an outpatient based clinical trial with pre and post test design. The data collected during clinical study were tabulated and statistically analyzed using Student 't' test. The changes observed with 'p' value less than 0.05 is considered as significant.

**Investigations:** Blood routine (Hb%, total leucocyte count, differential leucocyte

count, erythrocyte sedimentation rate), urine examination, serum alkaline phosphate.

### OBSERVATIONS

**Status of patients of present study:** In the present study total 32 patients are registered, out of which 30 patients completed the study and 2 patients discontinued the medicine in between. **Socio-economic Status:** It was calculated by using Kuppuswamy socio-economic status scale. Among *GrahaniRoga* patients, maximum of 34.4 % were belonging to upper lower economic class, 28.1 % hailed from upper middle class, 21.9% were from lower middle class, 9.4 % were from lower class and 6.2 % were having upper socio-economic background. **Occupation:** Among *GrahaniRoga* patients, shop owner, farmer and professionals were maximum of 21.9%

each followed by 18.8% were semi-skilled worker, 12.5% were unemployed and least number of patients were i.e, 6.2% were skilled workers, 6.2% were semi-professionals and 6.2% were unskilled workers. **Diet:** 68.8% were having mixed diet, the rest that is 31.2% were vegetarians. **Koshta:** Majority i.e. 71.9% patients were having *Madhyama Koshta*, 21.9% had *MriduKoshta* and 06.2% had *KruraKoshta*. **ShariraPrakruti:** Maximum 75% belonged to *Vata-Pitta Prakruti*, followed by *Vata-KaphaPrakruti* in 15.6 % patients while 9.3% of patients had shown characteristic features of *Pitta-KaphaPrakruti*. **Agni:** In 84.4% cases *Vishmagni* was observed, in 12.5% cases *Mandagni* was observed, while in 3.1% *Agni* was found *Tikshna*.

### RESULTS

Table 1: Effect of medicines on signs and symptoms of *GrahaniRoga*

Parameter	N	Mean		% of Change	S.D (±)	S.E (±)	T	P	Significance
		BT	AT						
<i>Muhurbaddha muhurdrava Malapravruthi</i>	30	1.77	0.4	↓77.4	0.62	0.11	12.17	<0.001	HS
<i>Apakva Malapravruthi</i>	30	1.62	0.24	↓85.19	0.62	0.11	11.95	<0.001	HS
<i>Dourgandhitha Malapravruthi</i>	30	1.28	0.28	↓78.13	0.6	0.11	9.01	<0.001	HS
<i>MalaPicchilatha</i>	30	1.69	0.72	↓57.4	0.68	0.13	7.64	<0.001	HS
Frequency of <i>Mala</i>	30	1.5	0.37	↓75.33	0.68	0.12	9.11	<0.001	HS
<i>Udara Shoola</i>	30	1.86	0.38	↓79.57	0.93	0.2	7.287	<0.001	HS
<i>Udara Gourava</i>	30	1.44	0.22	↓84.72	0.67	0.22	5.5	0.001	HS
<i>Sharira Gourava</i>	30	1	0.00	↓100	0.00	0.00	-	<0.001	HS
<i>Praseka</i>	30	1.00	0.00	↓100	1.41	1.00	1.00	>0.05	NS
<i>Vishtambha</i>	30	1.53	0.33	↓78.43	0.56	0.15	8.29	<0.001	HS
<i>Atopa</i>	30	1.5	0.00	↓100	0.62	0.15	10.29	<0.001	HS
<i>Aruchi</i>	30	1.17	0.08	↓93.16	0.5	0.1	10.54	<0.001	HS
<i>Ajeerna</i>	30	1.9	0.87	↓54.21	0.56	0.1	10.18	<0.001	HS
<i>Alasya</i>	30	1.57	0.39	↓75.16	0.72	0.15	7.85	<0.001	HS
<i>Vidaha</i>	30	1.46	0.15	↓89.73	0.63	0.18	7.48	<0.001	HS

HS-highly significant, NS- Not significant.

### DISCUSSION

**Conceptual discussion on disease:** *GrahaniRoga*: *GrahaniRoga* is discussed as

an independent disease and considered as *Maharoga*. *Grahani* is *Ashraya* and *Agni* is *Ashrita* and due to various etiological factors

the functions of *Grahani* becomes impaired as a result of vitiation of *Pachaka Pitta*, *SamanaVayu* and *Kledaka Kapha*.<sup>4</sup> In the logical outcome of *GrahaniRoga*, firstly there is maldigestion of ingested food which results in the production of *Ama* and secondly Malabsorption of the product of digestion. There is no common opinion regarding the correlations of *GrahaniRoga* with any of the particular disease entity described in modern medicine. Here the disease entity pertaining to gastrointestinal tract which are comparable with *GrahaniRoga* are discussed.

**Clinical Presentation of Irritable bowel syndrome:** IBS is characterized by abdominal pain, indigestion, abdominal distension, gastro esophageal reflex, fatigue, anorexia and altered bowel habits, including diarrhoea, constipation, or alternating diarrhoea and constipation. Symptoms are typically intermittent but may be continuous and should be present for at least 3 months before a diagnosis of IBS is considered. Patients with IBS may have symptoms referable to upper gastrointestinal tract including non-cardiac chest pain, heart burn, dysphagia and globus sensation, fatigue, urologic dysfunction and gynecological complaints.

#### **Drug discussion**

**Pippalyasava:** *Pippalyasava*<sup>5</sup> was selected as trial drug for the present study. The preparation has drugs viz. *Pippali*, *Maricha*, *Chavya*, *Haridra*, *Chitraka*, *Ghana*, *Vidanga*, *Kramuka*, *Lodhra*, *Patha*, *Amlaki*, *Elavaluka*, *Usheera*, *Chandana*, *Kushta*, *Lavanga*, *Tagara*, *JatAmamsi*, *Tvak*, *Patra*, *Ela*, *Priyangu*, *Nagakesara*, *Dhataki* and *Draksha*.

**SuranaVataka:** *SuranaVataka*<sup>6</sup> was selected as other trial drug. The preparation has drugs

viz. *Surana*, *Vruddhadaru*, *Chitraka*, *Musali*, *Bhallathaka*, *Haritaki*, *Vibhitaki*, *Amlaki*, *Pippali*, *Pippalimoola*, *Shunti*, *Vidanga*, *Tvak*, *Talisa*, *Ela*, *Maricha* and *Guda*.

#### **Discussion on observations of the study:**

**General observation:** The observations reported in 32 patients are being discussed below.

**Diet:** Majority of patients i.e. 68.8% were having mixed type of diet. Improper and excessive intake of salt, sour, fried and oily food causes *AgniDushti* which leads to *GrahaniRoga*.

**Koshta:** In the present clinical study, 100% of patients were having unsatisfactory bowel habits. Majority i.e. 71.9% patients were having *MadhyamaKoshta*, followed by 21.9% of patients were having *MriduKoshta*. The patients of *GrahaniRoga* are more prone to recurrent diarrhea.

**Agni:** In the present clinical study, highest number of patients i.e. 84.4% had *Vishamagni*, followed by 12.5% of *Mandagni*. *Vishamagni* is due to the vitiation of *Vata*, and this signifies the importance of *Vata Dosha* in the pathogenesis.

**Etiological Factors:** Aharaja Nidana: *Ati Katu Aahara*, *Ati Snigdha Aahara*, *Asatmya Bhojana*, *Ati Guru Bhojana*, *Ati Vidahi Bhojana* was observed in majority of patients like excess intake of pickle, fried non vegetarian diet, fast food etc. Maximum patients were having faulty Dietetic habits. This is responsible for vitiation of *Dosha* which leads to *AgniDushti* and Formation of *Ama*, which leads to disease occurrence. ViharajaNidana: *Diva svapna*, *Ratri jagarana* and *Ati Vyayama* were found in some patients. These all things are responsible for improper digestion and

vitiation of *Doshas*, leading to *Amavastha* and finally leading to *GrahaniRoga*.

Involvement of *Srotas*:

*Annavaaha Sroto Dushti Lakshana*: Among *Annavaaha Sroto Dushti Lakshanas*, *Avipaka* was found in 6.2% patients. *Arochaka* was found in 9.4% patients, *UdaraShoola* was observed in 53.1% patients, *Adhmana* was found in 28.1% patients, *Amlaudgara* in 18.8% patients, *HrudayaUpardha* in 3.1% patients, *Pipasa* in 6.2% patients, *Chardi* in 3.1% patients, *Anaadvesha* in 6.2 % patients, *Vishama kshudha* in 65.6% patients, *Anannabhilasha* in 9.4% patients and *Kanda daha* was found in 36.2% patients. It signifies involvement of *AnnavaahaSrotas*<sup>7</sup> in Pathogenesis of the disease.

*Purishavaha Sroto Dushti Lakshana*:

*Muhurbaddha muhur Drava Malapravruthi* was observed in all patients. *KukshiShoola* was found in 28.2% patients. *AdhoVataAtipravvruthi* in 9.3% patients, *Gourava* was found in 6.2% patients, *Saama Mala Pravvruthi* was observed in 100% patients, *Adhovata Sanga* was observed in 3.1% patients where as *Atisara* was found in 37.5% patients. It signifies involvement of *PurishavahaSrotas*<sup>8</sup> in Pathogenesis of the disease occurrence. These *Srotas* are related with digestion, absorption and excretion. Hence it can be summarized that in *GrahaniRoga* the predominantly involved *Srotas* are *Annavaaha* and *Purishavaha Srotas*.

**Probable mode of action of *Pippalyasava* and *SuranaVataka* on treating the symptoms:**

*Muhurbaddha muhurdrava Malapravruthi* was found as chief complaint in 100% patients. The drugs like *Chitraka*, *Maricha*, *Ghana (Mustha)*, *Kramuka*, *Lodhra*, *Patha*,

*Nagakesara*, *Dhathaki*, *Vibhithaki*, *Surana*, *Bhallathaka*, and *Shunti* are having *Deepana*, *Pachana* and *Grahi* action and directly indicated in diseases like *Atisara*, *Pravahika* and *Grahani*. Properties like *Katu*, *Tikta*, *Madhura Rasa*, *Laghu*, *Ruksha* and *Tikshna Guna* acts as *Amapachaka* and *Agnideepaka* also *KashayaRasa* and *Snigdha*, *Guru Guna* and *Grahi* action<sup>9</sup> help in reducing the colonic motility and finally it helps in treating *Muhurbaddha muhurdrava Mala Pravvruthi*. *Apakva Malapravruthi* was found in 96.9% patients. By the *Agnideepana* and *Pachana* properties and by *Laghu*, *Ruksha* & *Tikshna Guna* of drug it enters into *SukshmaSrotas* and clears *Ama* from *Srotas*. Here *Pachana* is the treatment principle described in the classics.<sup>10</sup> *Picchila* and *Dourgandhitha Malapravruthi* was found as chief complaints in 100% patients. The drugs having *TiktaRasa* and *Laghu*, *Ruksha Guna* may help in reducing the colonic motility and thereby help in treating *Picchila* and *Dourgandhitha Mala Pravvruthi*. *UdaraShoola* was found in 68.8% patients. The drugs, *Surana*, *Pippali*, *Maricha*, *Chitraka*, *Vidanga*, *Patha*, *Amlaki*, *Lavanga*, *Ela*, *Kushta* and *Shunti* are having *Shoolahara* properties. *Udara Gourava* was found in 40.6% patients. *Sharira Gourava* was present in 40.6% patients. Most of the drugs may be acted as *Kapha Vatahara* by its properties like *Katu-Tikta-Madhura Rasa* and *Ushna Veerya*. *Vishtambha* was found in 53.1% patients. *Atopa* was found in 62.5% patients. *Vidanga*, *Shunti*, *Pippalimoola* and *Lavanga* are the ingredients of the preparations which are capable of treating these conditions. These preparations are beneficial in managing the *Amashayagatha* and *PakvashayagathaVata*. *Alasya* was found in 78.1% patients. *Triphala*,

*Bhallathaka, Pippali, Maricha, Tvak, Draksha, Vruddhadaru and Musali* are having *Balya, Vrushya* and *Rasayana* actions may help in treating this condition along with *Agnideepaka* property. *Vidaha* was noticed in 51.52% patients. In this condition there may be increase in the *Snigdha* and *Ushna Guna* of *Pitta* along with increase in *Dravamsha* associated with *Urdhvagamana* of *Vata*. As the drugs are having *Laghu-Ruksha Guna* and *Tikta Rasa* along with the drugs which are having *Vathanulomaka* properties may help to tackle this condition.

Effect on *Manasika Vikara*: Any disturbance in the *Sharira* affects the *Manas* and any disturbance of the *Manas* will affect the *Sharira* too because of the inseparable relationship between them. In the present study Majority of patients i.e. 59.3% were having *Chintha / Shoka*. As the preparations contain *Jatamamsi, Tagara, Ghana* and *Amlaki* may directly help to treat such *ManasikaVikaras* with their *Medhya, Balya* and *Rasayana* effect. *Ajeerna* was found as chief complaint in 100% patients. *Aruchi* was found in 78.1% patients. *Talisa, Patra* and *Tvak* are having *Ruchya* action. Because of *Katu-Tikta Rasa, Laghu-Ruksha-Tikshna Guna, Ushna Virya* and *Katu Vipaka* the drugs have an action on *Jatharagni*. With the same time, because of the specific action of *Pippalyasava* and *SuranaVataka*, it is supported to act on *Grahani* too. So, these preparations regulate *Jatharagni* and the functions of *Grahani* and ultimately curing '*GrahaniRoga*'.

## CONCLUSION

The overall effect of therapies showed 81.9% improvement in symptoms. There is no any adverse reaction found with these drugs. Administration of medicines in

longer duration is needed for better results. The combination of *Pippalyasava* and *Surana Vataka* has given statistically highly significant results. Thus it can be concluded that these medicines are effective in the management of *VataKaphaja GrahaniRoga*.

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