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A controlled clinical trial to evaluate the efficacy of *Shalaparnyadi Kwatha* in the management of *Vataja Grahani*

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ABSTRACT

Background: Current mechanized life, irregular dietary patterns, irregularity in daily practices, junk food indulgence, stressful life, over usage of pesticides and chemicals leads to various gastro intestinal disorders. These factors hamper the digestive capacity of individuals and develop the disease *Grahani*. *Shalaparnyadi Kwatha* mentioned in treatment of *Vataja Grahani* in *Sharangadhara Samhita is* taken up for study in the management of *Vataja Grahani*. **Objective:** To evaluate the efficacy of *Shalapanryadi Kwatha* in *Vataja Grahani*. **Method:** The study was a double arm open labelled controlled clinical trial with pre and post-test study design. There were total of 41 subjects involved in the study and were divided into two groups - Group A (trial group) with 21 subjects and Group B (controlled group) with 20 subjects. Group A was administered with *Shalaparnyadhi Kwatha* and *Panchamooladya Choorna* and Group B was administered with *Panchamooladya Choorna* for 30 consecutive days**. Result:** A controlled clinical study was conducted on subjects of *Vataja Grahani* with *Shalaparnyadi Kwatha* and *Panchamooladya Choorna* in trial group and *Panchamooladya Choorna* in control group both the interventions were effective in management of *Vataja Grahani.* Based on the mean value and statistically significant difference between the groups, trial group showed better result than control group in *Amayukta Mala Pravrutti* and *Udara Shoola.* **Conclusion:** It can be concluded from the results that added effect of *Shalaparnyadi Kwatha* with *Panchamooladya Choorna* is more effective than *Panchamooladya Choorna* alone.

Key words: *Samana Vayu, Apana Vayu, Pachaka Pitta, Punaha Punaha Mala Pravrutti, Deepaneeya Guna*

INTRODUCTION

Grahani Roga described in classical text books of *Ayurveda* represents a group of disorders of digestive system caused by impairment of *Agni*[1] *Grahani* is included under *Ashtamahagada.*[2]

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Grahani performs the functions such as *Grahana*, *Dharana* and *Pachana* of *Ahara* with the help of *Agni*. Any causative factor which affects normal functioning of *Jataragni* may lead to *Grahani Dosha*.

In present days people indulge in more spicy foods, raw vegetable salads, salads made from legumes, highly processed food with preservatives, fizzy cold drink, frozen desserts, refrigerated food and irregularity in diet and diet timings. Apart from this, there is influence of mental factors such as anxiety, grief, stress and practice of suppression of natural urges and untimely sleep. All these lead to *Karmataha* and *Gunataha Vaishamya* of *Vata Dosha* resulting into *Agni Dushti* and derangement in circadian rhythm thereby manifests as *Vataja Grahani Roga*. Imbalance of *Agni* and *Samana Vata* are the most predominant factors involved in the pathogenesis of *Grahani*. Once the disease manifests, *Apana Vata* and *Prana Vata* also get

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vitiated and play significant role in the progression of disease.

These factors disturb the normal function of digestion and absorption and results in deranged digestion which leads to delayed digestion, *Shukta Paka*, distaste in mouth and deranged assimilation leading to *Ama Mala Pravrutti*. It also presents with altered bowel habit such as frequent passing of stools, prolonged painful evacuation, passes liquid stools and also passes stools with flatus and froth.

Nutritional deficiency symptoms such as darkness in front of eyes, emaciation, weakness, ringing sound in ears, pain in flanks, thighs and pelvic region along with pain and distension of abdomen are observed.[3]

Hence line of treatment is to correct *Agnidushti* and *Shamana* of *Prakupita Vata.*

Shodhana and many formulations in the form of *Ghrita, Kwatha, Choorna* and *Taila* are mentioned in the context of *Vataja Grahani Chikitsa*. In this study, *Shalaparnyadi Kwatha* with *Panchamooladya Choorna* as control drug for management of *Vataja Grahani* is taken up. *Shalaparnyadi Kwatha* is having *Deepana, Pachana, Vatahara, Grahi* properties along with *Shoolahara* & *Adhmanahara* actions.[4] It also acts as best *Bruhmana* and *Rasayana* and may be effective in the management of *Vataja Grahani*.

MATERIALS AND METHODS

Materials

The materials used for the present clinical study were as follows:

Group A

1. *Shalaparnyadi Kwatha*
2. *Panchamooladya Choorna*

Group B

1. *Panchamooladya Choorna*

Shalaparnyadi Kwatha

Formulation *Shalaparnyadi Kwatha* mentioned in *Sharangadhara Samhita,* was manufactured and procured from S.N. Pandit and Sons Ayurvedic Co. Pvt. Ltd, Mysuru, (a GMP certified pharmacy) for the study.

Panchamooladya Choorna

Panchamooladya Choorna mentioned in *Charaka Samhita*, was manufactured and procured from S.N. Pandit and Sons Ayurvedic Co. Pvt. Ltd, Mysuru, (a GMP certified pharmacy) for the study.

Methods

Source of data

Subjects were selected incidentally from the OPD and IPD of Government Ayurveda Medical College and Hospital, Mysuru.

Study design

A controlled clinical study with pre-post test design. Simple random sampling technique was employed.

Grouping

Subjects were assigned into two groups i.e., Group A (Trial Group) and Group B (Control Group).

Sample size: The study was completed in 41 subjects with no dropouts.

Duration of the intervention: 30 days

Inclusion Criteria

- Subjects between the age group of 18-60yrs were selected.
- Subjects irrespective of gender, religion, occupation and chronicity were selected for study.
- Both fresh and treated cases were included.
- Subjects with symptoms of- *Buktho Bahushaha Ama meva vimunchati*(expels the food in in undigested form), *Punaha Punaha Mala Pravrutti* (frequent passing of stools), *Chirat Dukha Mala Pravrutti* (prolonged painful evacuation), *Drava Mala Pravrutti* (passes liquid stools), *Udarashoola* (abdominal pain), with or without other *lakshana* of *Vataja Grahani* like *Shukta paka, Kharangata, Kantashosha, Kshut, Trushna, Hrutshoola, Karshya, Parikartika* were selected for the study.

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Exclusion Criteria

- Subjects suffering with other systemic diseases which interfere with the intervention of treatment will be excluded.
- Subjects with *Lakshanas* like, *Gudabramsha*, *Gudapaka*, *Gudashotha*
- were excluded from the study.
- Pregnant and lactating women were excluded.

Diagnostic Criteria

- *Buktho Bahushaha Ama Meva Vimunchati* (expels the food in undigested form).
- *Muhur Baddha Muhur Drava Mala Pravrutti* (alternative constipation or diarrhoea).
- *Muhur Muhur Mala Pravrutti* (frequent passing of stools).
- *Chirath Dukha Mala Pravrutti* (prolonged painful evacuation).
- *Udarashoola* (abdominal pain).

Assessment Criteria

Primary Assessment Criteria

Grading of the Symptoms

Punaha Punaha Mala Pravrutti

Once a day - 0

2-3 times a day - 1

4-5 times a day - 2

>6 times a day - 3

Drava Mala Pravrutti

Normal consistency - 0

Semisolid - 1

Thick fluid consistency - 2

Watery - 3

Amayukta Mala Pravrutti

No visible mucus in stool - 0

Visible sticky mucus in stool - 1

Passage of mucus with frequent stool - 2

Passage of large amount of mucus in stool - 3

Chirath Dukha Mala Pravrutti

Complete evacuation without straining - 0

Incomplete evacuation even after defecation with straining - 1

Painful defecation - 2

Pain continues even after defecation - 3

Udara Shoola or Discomfort

No abdominal pain - 0

Occasional/ rarely abdominal pain - 1

Intermittent abdominal pain relieved by passage of flatus & stool - 2

Continuous pain not relieved by passage of flatus & stool - 3

Secondary Assessment Criteria

Questionnaire

SN	Questionnaire	Answer
1.	Do you feel sour belching?	Yes or No
2.	Do you feel dryness of throat and mouth cavity?	Yes or No
3.	Are you suffering from frequent pain in sides of chest, thighs, pelvic region and neck?	Yes or No
4.	Do you feel discomfort over the chest region?	Yes or No
5.	Do you feel distaste in mouth?	Yes or No
6.	Do you feel weakness?	Yes or No
7.	Is your weight reduced?	Yes or No
8.	Do you feel distension of abdomen which reduces after taking meal?	Yes or No
9.	Do you feel fatigue?	Yes or No

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Assessment Schedule

In the present study the assessment was carried out in the following schedule.

1. Pre -test assessment was done on 0 day before the administration of intervention.
2. Post -test assessment was done on 31st day after the completion of intervention.

Statistical Methods

Chi square test and descriptive statistics was applied as statistical method for the data collection and was analysed using SPSS for windows software.

Investigations

However, investigations were conducted to rule out other systemic disorders, investigations such as Hb%, TC, DC, ESR, Urine - sugar, albumin and microscopic examination.

Intervention

Group A (Trial Group): Following intervention were done;

40 ml of *Shalaparnyadi Kwatha* in two equally divided doses of 20 ml with lukewarm water just before food for 30 days, along with *Panchamooladya Choorna* - 6gms in two equally divided doses of 3gms along with lukewarm water as *Anupana* after food for 30 days.

Group B (Control Group): Following intervention were done;

Panchamooladya Choorna - 6gms in two equally divided doses of 3gms along with lukewarm water as *Anupana* after food for 30 days.

OBSERVATIONS

Age - 11 (26.8%) subjects belonged to the age group of 20-30 years, 16 were between the age group of 31-40 years, 8 individuals were from the age group of 41-50 years and 6 belonged to the age group of 51-60 years.

Gender - In the present study out of 41 subjects, 26 individuals were male and 15 were female.

Education - Among 41 individuals, 11 (26.8%) had high school education, 7 (17.1%) had passed higher secondary education, 15 (36.6%) subjects were graduates and 8 (19.5%) were illiterates.

Occupation - Among 41 subjects, 13 (31.7%) individuals were home-makers, 13 (31.7 %) subjects were doing desk work in office, 4 (9.8%) individuals were students and other 11(26.8%) subjects were works in construction field, factory, garments and business.

Socio-Economic Status - Among 41 subjects, 7(17.1%) clients belonged to lower class, 23(56.1%) belonged to Lower middle class and 11 (26.8%) belongs to upper middle class

Chronicity - In the present study out of 41 subjects, 10 (24.4%) individuals had chronicity of the disease less than one year, 19 (46.3%) had 1-3 years of chronicity, 5 (12.2%) clients had 4 -6 years of history, 7 (17.1%) had chronicity of more than 6 years.

Habitat - In the present study out of 41 subjects, 37 (90.24%) individuals were from urban area, whereas 4 (9.76%) belonged to rural.

Prakruti - In the present study out of 41 subjects, 22 (53.7%) individuals were of *Vata Pitta Prakruti*, 13 (31.7%) individuals were of *Vata Kapha Prakruti*, another 6 (14.6%) clients had *Pitta Kapha Prakruti.*

Agni - In the present study out of 41 subjects, 19(46.3%) individuals had *Mandagni*, 21 (51.2%) individuals had *Vishamagni*, 1(2.4%) individuals had *Teekshnagni*.

Koshta - In the present study out of 41 subjects, 34 (82.9%) individuals had *Mrudu Koshta* 1 (2.4%) individual had *Madyama Koshta*, 6 (14.6%) individuals had *Krura Koshta.*

Diet - In the present study out of 41 subjects, 11 (26.8%) subjects were vegetarians, 30 (73.2%) subjects had mixed type of diet.

Nature of Food Intake - In the present study out of 41 subjects, 31 (75.6%) individuals had habit of taking *Guru Ahara* (in terms of *Matra, Swabhava, Paka)*, 10 (24.4%) had habit of taking *Laghu Ahara.*

Rasa Pradhanyata of Ahara - In the present study out of 41 subjects, 26 (63.4%) individuals had habit of

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taking *Katu Tikta Kashaya Rasa* in excess (spicy fatty foods, raw vegetable salads, salads made from legumes, *Kalaya* - Pisum Sativum (Garden Pea), *Chanaka* - Benagl gram, Cucurbitaceae family plants, other 15 (36.6%) individuals do not take it in excess.

Dietary Habits - In the present study out of 41 subjects, 7 (17.1%) individuals had practice of *Adhyashana*, 12 (29.3%) individuals had practice of *Kalabhojana* and other 22 (53.7%) individuals had *Akala* or *Atita Kala Bhojana*.

Vegadharana - 17 subjects (58.5%) had habit of *Vega Dharana* and 24 subjects (41.5%) had no such habit.

Manasika Bhava - In current study *Chinta, Shoka, Bhaya Manasika Bhava* were present in 21 (51.2%) subjects and absent (48.8%) in 20 subjects.

***Punaha Punaha Mala Pravrutti* -** All 41 Subjects had this symptom with varied frequency (maximum - >6times to minimum of 2-3 times a day), majority of subjects i.e., 19 had frequency of 4-5 times a day.

***Drava Mala Pravrutti* -** 36 subjects had the history of passing loose stools with varied consistency.

***Amayukta Mala Pravrutti* -** 36 subjects presented with passage of mucous mixed stools.

***Chirat Dhukha Mala Pravrutti* -** 33 clients presented with different grades of discomfort during and after the defecation in terms of incomplete evacuation even after defecation with straining, painful defecation and continuous pain even after defecation.

***Udara Shoola* -** All 41 Subjects had varied grades of this symptom with occasional/ intermittent/ continuous pain which was related to passage of stools or flatus.

RESULTS

Result on *Punaha Punaha Mala Pravrutti*

21 subjects in Group A and 20 subjects in Group B presented with *Punaha Punaha Mala Pravrutti* of varied frequency. Both the groups showed highly significant result with P value 0.000.

Between groups there was non-significant difference with P value 0.135.

Table 1: Showing the results on *Punaha Punaha Mala Pravrutti*

Punaha Punaha Mala Pravrutti		Once a day	2-3 times a day	4-5 times a day	>6 times a day	Total
Group A	BI	0	5	10	6	21
	AI	7	13	1	0	21
Group B	BI	0	11	9	0	20
	AI	11	9	0	0	20

Results on *Drava Mala Pravrutti*

20 subjects in Group A and 15 subjects in Group B had the history of passing loose stools with varied consistency both the groups showed highly significant result on with P value 0.000.

Table 2: Showing the results on *Drava Mala Pravrutti.*

Drava Mala Pravrutti		Normal consistency	Semi solid	Thick fluid consistency	Watery	Total
Group A	BI	1	5	10	5	21
	AI	14	6	1	0	21
Group B	BI	5	8	6	1	20
	AI	10	8	2	0	20

Results on *Amayukta Mala Pravrutti*

17 subjects in Group A and 18 subjects in Group B subjects had *Amayukta Mala Pravrutti.* Both the groups showed highly significant result with p value 0.013.

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Table 3: Showing the results on *Amayukta Mala Pravrutti.*

Amayukta Mala Pravruti		No visible mucus in stool	Visible sticky mucus in stool	Passage of mucus with frequent stool	Passage of large amount of mucus in Stool	Total
Group A	BI	3	5	9	4	21
	AI	18	2	1	0	21
Group B	BI	2	6	12	0	20
	AI	4	13	3	0	20

Results on *Chirat Dhukha Mala Pravrutti*

17 subjects in Group A and 16 subjects in Group B had *Chirath Dhukha Mala Pravrutti.* Both the groups showed highly significant result with P value 0.000.

Table 4: Showing the results on *Chirat Dhukha Mala Pravrutti.*

Chirath Dhukha Mala Pravrutti		Complete evacuation without straining	Incomplete evacuation even after defecation with straining	Painful defecation	Pain continues even after defecation	Total
Group A	BI	4	6	9	2	21
	AI	18	2	0	1	21
Group B	BI	4	9	5	2	20
	AI	12	4	4	0	20

Result on *Udara Shoola*

21 subjects in Group A and 20 subjects in Group B had varied grades of this symptom with occasional/ intermittent/ continuous pain which was related to passage of stools or flatus.

Table 5: Showing the results on *Udarashoola.*

Udara Sholas		No Abdominal pain	Occasional / rarely abdominal pain	Intermittent abdominal pain relieved by passage of flatus and stool	Continuous pain not relived by passage of flatus and stool	Total
Group A	BI	0	3	15	3	21
	AI	17	2	2	0	21
Group B	BI	0	10	10	0	20
	AI	1	15	4	0	20

RESULTS

Result on Sour Belching - Both the groups showed highly significant result with p value 0.000.

Result on Dryness of Throat and Mouth Cavity - Both the groups showed highly significant result with p value 0.001

Result on Pain in the Sides of the Chest, Thighs, Pelvic Region - Both the groups showed highly significant result with p value with p value 0.000

Result on Distaste in Mouth - Group A showed statistically significant difference in distaste in mouth with p value 0.048. Group B statistically non-significant difference in distaste in mouth with p value 1.000.

Result on Weakness - Both the groups showed highly significant result with p value 0.000.

Result on Reduced Weight - Group A showed statistically significant difference with p value 0.238. Group B showed statistically non-significant difference with p value 0.407.

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Result on Distension of Abdomen which reduces after Taking Meals - Both the groups showed highly significant result with p value 0.000.

Result on Fatigue - Group A statistically significant difference in fatigue with p value 0.093. Group B showed statistically significant difference in fatigue with p value 0.695.

DISCUSSION

Probable mode of action of *Shalaparnyadi Kwatha*

Shalaparnyadi Kwatha explained in *Sharangadhara Samhita Madyama Khanda Kwatha Prakarana* is indicated in *Vataja Grahani* accompanied with *Adhmana* and *Shoola*. It consists of *Shalaparni, Bala, Bilwa, Dhanyaka* and *Shunti*.[4]

Shalaparni - possess *Madhura Tikta Rasa, Ushna Veerya, Madhura Vipaka* and is *Vata Pitta Shamaka, Balya, Vrushya* and *Rasayana* in action which is indicated mainly in *Atisara*.

Plant extracts of *Desmodium gangeticum* containing tannin, flavonoids, alkaloids, pterocarpens, phospholipids, saponins and steroids have been reported to possess gastro intestinal anti-motility and anti-spasmodic, anti-diarrhoeal, anti-inflammatory, anti-nociceptive activity and gastro protective effect on gastric ulcer.[5]

It does the *Shamana* of *Prakupita Samana* and *Apana Vata*, helps to reduce *Adhmana*, *Visuchika* and *Kharatva*, *Rukshata* in body parts, *Punaha Punaha Rava Mala Sarana, Dourbalya* and *Krushangata.*

Bala - *Madhura Rasa, Snigdha Guna, Sheeta Veerya* and *Madhura Vipaka, Tridoshahara , Brumhana, Balya* and *Grahi* in action. Studies have shown that it possesses antidiarrheal activity, anti-ulcerogenic, anti-pyretic, analgesic, anti- stress and adaptogenic activity.[6]

Bilwa - Posses *Kashaya Tikta Rasa*, *Laghu Ruksha Guna*, *Sheeta Veerya*, *Madhura Vipaka* and *Tridoshahara.* It is mainly indicated in *Atisara* and *Grahani.*

It enhances the gastric mucosal protection by preventing the development of gastric mucosal lesion by its antisecretory and cytoprotective property and promotes gastric secretions and increase the glycoprotein level, gastric mucin content and maintenance of mucosal epithelium. It possesses immunomodulatory potential by stimulating cellular and humoral mechanism and also analgesic, anti-inflammatory action.[7]

Presence of marmelosin, tanins and flavonoids reported to have anti-diarrheal activity through inhibition of intestinal motility, antimicrobial action and antisecretory effects and control several forms of infectious diarrheal diseases caused by Escherichia coli, Entero invasive e coli strain, and to some extent it can control giardiasis and rotaviral infection.

Ethyl acetate fraction of A. marmelos is a significant source of polyphenolic compounds with potential anticholinesterase inhibitory property and antioxidant activity. Anticholinesterase inhibitor helps in preventing mucosal erosion by decreasing HCl secretion and also appears effective in functional dyspepsia.[8]

Shunti - possess *Katu Rasa, Ruksha Teekshna Guna, Ushna Veerya, Madhura Vipaka* and is *Vata Kaphahara* and is indicated in *Adhmana, Agnimandya, Atisara*.

Ginger rhizome contains phenolic compounds gingerol, shogaol, zingerone and phenolic acids like gallic acid and cinnamic acid which performs action as gastro-protective and anti-*H. pylori* through these mechanisms.[9]

- Antimicrobial effect by anti-adhesive effect and also suppression of bacterial enzymes and bacterial growth;
- Inhibiting gastric acid secretion through blocking H+, K+- ATPase pump;
- Gastro-protective effect by increased mucin secretion;
- Anti-oxidative and anti-inflammatory effects which prevent *H. pylori*-induced acute and chronic inflammation.

Studies show that it reduces functional dyspepsia symptoms like gastric fullness, early satiety, nausea and vomiting, belching, bloating, heartburn and

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epigastric pain by accelerating gastric emptying, stimulating antral contraction decreasing pressure on lower esophageal sphincter, and reducing intestinal cramping.

Dhanyaka *- possess Tikta Kashaya Rasa Laghu Tikshna, Snigdha Guna Sheeta Veerya* and *Madhura Vipaka* and main action of *Dhanyaka* is *Deepana*, *Pachana* and *Grahi* .

Studies have shown that, Coriandrum sativum seed has anxiolytic effect and potential sedative and muscle relaxant effect. It also helps in management of neuro inflammation and cognitive behavioral deficits. It is also proven to have antidepressant, anti-nociceptive, anti-inflammatory action.[10]

Shunti does *Agni Deepana* and *Pachana* of the *Ama*, helps in *Jarana* of *Ahara* in *Samyak Kala* there by reduces *Shukta Paka*, *Hrut Peeda, Asya Virasya. Shalaparni* does *Shamana* of *Prakupita Samana* and *Apana Vata*, helps to reduce *Adhmana, Visuchika, Kharatva, Rookshata* in body*, Punaha Punaha Drava Mala Sarana*. Its *Rasayana* and *Bruhmana* action helps to relieve *Dourbalya* and *Krushangata*.

As *Bilwa* is directly indicated in *Grahani Roga* and is best *Vatahara,* it provides *Bala* to the *Grahani Avayava*. constituents present in this helps to increase the glycoprotein level, gastric mucin content and maintenance of mucosal epithelium. *Sangrahika* action of *Bilwa* helps in absorption of water and nutrients and proper formation of *Pakwa Mala* and its expulsion in timely manner.

Bala is *Grahi* in action and comes under *Balya Bruhmana Dashemani Dravya* and *Sarva Vata Vikara Hara.* It helps to reduce pain in abdomen and in sides of flank region.

For *Chinta*, *Vishada* and *Shoka, Harshana* and *Vata Shamana* is the best line of treatment. *Bala* by its stress and adaptogenic activity reduces the cortisol level and reduces *Vishada*.

Dhanyaka is best *Grahi* and helps to maintain the normal gastro-motor activity by reducing neuro inflammation and anxiety and brain gut dysfunction.

Probable mode of action *Panchamooladya Choorna*

Panchamooladya Churna explained in *Charaka Samhita Grahani Chikitsa Adhyaya* is indicated in *Vataja Grahani* and is mentioned best for *Agni Sandeepana* and *Pachana*.

It consists of *Panchamoola* (*Bilwa, Agnimanta, Patala, Gambari, Shyonaka, Abhaya, Vyosha (Shunti ,Maricha, Pippali), Pippalimula, Saindava Lavana, Rasna, Sarjakshara, Yava Kshara, Ajaji, Vidanga, Shati.*

In this formulation most of the drugs are having *Tikta, Kashaya, Madhura Rasa, Laghu Guna, Ushna Veerya* and *Katu Vipaka* and are *Kapha Vatahara*. Impairment in *Grahani* function is outcome of *Agnidusti*, in case of *Vataja Grahani* this *Agni Vaishamya* is caused due to vitiation of *Samana* and *Apana Vata* and *Kledaka Kapha*.

This *Vaishamya* results in *Ama Lakshana* such as delay in digestion, *Shuktapaka*, *Hrutpeeda, Asya Vairasya. Agnimanta, Gambari, Shunti, Maricha, Pippali, Saindava lavana* have *Deepana, Pachana* action and help in *Pachana* of *Ama*.

Vidanga, Rasna by their *Vata Shoolahara* action reduce *Parshwa, Uru, Vamkshana, Greeva Ruja.*

Sarja Kshara, Yava Kshara and *Saindava Lavana* by *Deepana, Pachana, Adhmana hara* action reduce bloating and pain abdomen. These are alkaline substances which neutralize the acids and help in reduction of functional dyspepsia symptoms.

Shunti, *Jeeraka*, *Shati* act as *Ushna Ama Grahi* increase the strength of *Jataragni*, help in *Ama Pachana* and does *Dravamsha Shoshana* of *Pureesha*, correct *Drava Ama Mala Pravrutti*. *Shyonaka* acts as *Stambaka* which is helpful in *Pakwatisara*.

Embelin is the phytoconstituent in *Vidanga* which is proven to have anti-inflammatory, analgesic, anxiolytic and antidepressant and may also be useful in relieving *Vibandha*.

Studies of *Terminalia chebula* have shown that, are effective in relieving constipation by improving amount and consistency of stools.[11]

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Discussion of result on *Amayukta Mala Pravrutti*

The mean value of trial group was 1.67 before intervention and after intervention the mean value was 0.19. The mean value of control group was 1.90 before intervention and after intervention the mean value was 0.95. There was highly significant difference in between the groups with p value .000.

Based on the mean value and significant difference between the groups, in *Amayukta Mala Pravrutti Lakshana* trial group showed more improvement than control group. Drugs used in this group predominantly had *Madhura, Tikta, Kashaya Rasa* and *Katu Vipaka* which help in proper absorption and *Shoshana* of *Drava* or *Kleda Amsha* and help in proper formation of *Mala*.

Gastro protective, anti- inflammatory, anti-ulcer activity of drugs in *Shalaparnyadi Kwatha* help to reduce the inflammation, and also protect the gastric mucosa from acidic gastric juices there by reducing mucous mixed stools. Anxiety or stress induces more mucous production. Drugs such as *Dhanyaka* and *Bala* present in this formulation act as best anxiolytics.

Discussion of result on *Udara Shoola*

The mean value of trial group was 2.00 before intervention and after intervention the mean value was 0.29. The mean value of control group was 1.50 before intervention and after intervention the mean value was 1.15. There was highly significant difference between the groups with p value 0.000.

Based on the mean value and significant difference between the groups in *Udara Shoola Lakshana* it can be infer that trial group showed more improvement than control group, *Shalaparnyadi Kwatha* contains *Bala, Bilwa* which are the best *Vatahara* in nature. There by it reduces the *Shoola* markedly.

Conclusion

Vataja Grahani is mainly caused due to irregular food habits in terms of alteration in dietary components, quantity and irregular timing of consumption, *Asatmya Ahara* in terms of allergies, effect of food borne pathogens and faulty adaptations like, irregular sleep pattern, suppression of urges. *Manasika Nidana* such as *Chinta*, *Shoka, Bhaya* mentioned as the cause of disease were clinically observed. *Samana* and *Apana Vata Dusti* play a major role in manifestation of disease and it can be correlated with abnormal gut motor activity, whereas *Agnidusti* results in improper digestion. *Pratyatma Lakshana* of *Vataja Grahani* i.e., *Punaha Punaha Srujet Varcha, Dhukha Mala Pravrutti, Udarashoola* were majorly in subjects. A controlled clinical study was conducted on subjects of *Vataja Grahani* with *Shalaparnyadi Kwatha* and *Panchamooladya Choorna* in trial group and *Panchamooladya Choorna* in control group. Both the interventions were effective in management of *Vataja Grahani*. Based on the mean value and statistically significant difference between the groups, trial group showed better result than control group in *Amayukta Mala Pravrutti* and *Udara Shoola*. *Vataja Grahani Roga* cannot be correlated specifically to any disease mentioned in contemporary science. But some symptoms in *Vataja Grahani* have similarities with few of the clinical features of diseases of contemporary science like irritable bowel syndrome, non-specific colitis, Crohn's disease, Tropical sprue, and Malabsorption syndrome.

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