

A CLINICAL STUDY TO EVALUATE THE EFFICACY OF CHATURBHADRA KWATH IN THE MANAGEMENT OF VATAJA GRAHANI ROGA (IBS)

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ABSTRACT

Grahani is regarded as the seat of Agni and is sustained by its strength. Any factor that disrupts the normal function of Jataragni can lead to Grahaniroga. Grahaniroga is categorized into different types based on the involvement of doshas. Among all the types of Grahaniroga, **Vataja Grahani Roga** is more common and can be correlated with Irritable Bowel Syndrome (IBS). Irritable bowel syndrome (IBS) is a functional bowel disorder characterized by abdominal pain or discomfort and altered bowel habits without any detectable structural abnormalities. The present study was undertaken to evaluate the efficacy of Chaturbhadra Kwath in the management of Vataja Grahani Rora or IBS. It is a single arm interventional clinical trial which was conducted at Department of Kayachikitsa, Govt. Ayurvedic College & Hospital, Guwahati involving 30 patients. The objective of the study was to assess the efficacy of Chaturbhadra Kwath on cardinal

symptoms of Vataja Grahani Roga for 45 days. The study's data and statistical analysis show promising results, indicating a need for further research into Chaturbhadra Kwath's potential for Vataja Grahani Roga.

KEYWORDS: Vataja Grahani Roga, Irritable Bowel Syndrome, Chaturbhadra Kwath, Clinical Study.

INTRODUCTION

Grahani is regarded as the seat of Agni and is sustained by its strength. Any factor that disrupts the normal function of Jataragni (digestive fire) can lead to Grahaniroga.^[1] Grahaniroga is categorized into different types based on the involvement of doshas.^[2] Among all the types of Grahaniroga, Vataja Grahani Roga is more common and can be correlated with Irritable Bowel Syndrome (IBS). The causes of Vataja Grahani are primarily factors that aggravate Vata dosha. These include: Katu, Tikta, Kashaya, Rooksha and Sheeta.^[3] The consumption of factors that aggravate Vata dosha leads to vitiated Vata enveloping the digestive fire (Agni), resulting in mandaagni, or weak digestive fire. This condition causes delayed and difficult digestion, leading to the formation of shukta paka, where the food becomes acidic in nature.^[4] In Charaka Samhita, the treatment for Vataja Grahani is explained in detail. These include: Aam Pachana, Deepaniya Ghrita, Anuvasana Basti, Virechana and Niruha Basti.^[5,6,7]

Irritable bowel syndrome (IBS) is a functional bowel disorder characterized by abdominal pain or discomfort and altered bowel habits without any detectable structural abnormalities. Irritable Bowel Syndrome (IBS) is a common gastrointestinal disorder that is often under discussed. It is primarily characterized by symptoms such as cramping, abdominal pain, bloating, constipation, and diarrhea. Subtypes of IBS are: Constipation (IBS-C)-predominant, Diarrhea (IBS-D)-predominant and Alternating or Mixed (IBS-M) (symptoms alternate between constipation and diarrhea).^[8]

The current treatment of IBS include: Patient Counseling and Dietary Alterations for IBS, Stool Bulking Agents, Anticholinergic or Antispasmodic Medications, Antidiarrheal Agents, Antidepressants, Antiflatulence Therapy, Modulation of Gut Flora, Serotonin Receptor Agonist and Antagonist, Chloride Channel Activators and Guanylate Cyclase-C Agonist.^[9]

In spite of recent advances in the western medicine the treatment of IBS is mere symptomatic, but symptomatic management of any disorder is incomplete as it cannot break the chain of pathogenesis. Hence considering this lacunae an effective treatment with the trial drug was planned for this study. The trial drug Chaturbhadra Kwath was selected from Bhaishaja Ratnavali, Grahani Rogadhikar.^[10]

MATERIALS AND METHODS

Aim and Objective of the study: To assess the efficacy of Chaturbhadra Kwath in the management of cardinal symptoms of Vataja Grahani Roga.

Study setting and Selection of patient: Patients were taken randomly from OPD and IPD of Kayachikitsa Department of Govt. Ayurvedic College & Hospital Guwahati, Assam.

Selection of the drug: The trial drug Chaturbhadra Kwath was selected from Bhaishaja Ratnavali, GrahaniRogadhikar.

Preparation of trial drugs

The trial drugs were prepared in the State Ayurvedic Pharmacy, Govt. Ayurvedic College and Hospital, Jalukbari, Guwahati.

Ingredients of chaturbhadra kwath are

Sl. No.	Drug	Botanicalname	PartsUsed	Quantity
1.	Guduchi	<i>Tinospora cordifolia</i>	Stem	1Part
2.	Ativisa	<i>Aconitum heterophyllum</i>	Root	1Part
3	Sunthi	<i>Zingibe rofficinale</i>	Rhizome	1Part
4.	Mustaka	<i>Cyperu srotundus</i>	Rhizome	1Part

The ingredients of trial drug were individually taken in separate vessels and were checked for adulterants, impurities, and stones and then cleaned properly. Then the drugs were allowed to get dried in shade for 2 days. Then Ativisa was purified as per purification methods mentioned in classical text. Then they are coarsely powdered and made Yavakut churna out of them by appropriate methods, weighed as per formula and then mixed well.

The Yavakut Churna thus obtained was given to the patient and was instructed them to prepare Kwath from it.

Preparation of Kwath: 1 part Churna + 8 Parts Water----> Boil it in mild fire ----> Evaporate water by boiling and reduce till 1/4th ---> Filter ---> Use it when fresh.

Sample size: 30 number of patients.

Study design: Open label Clinical trial.

- **Dose:** 50 ml twice daily.
- **Route and Time of administration:** Orally, After Meal.
- **Duration:** 45 days.

Inclusion criteria

- Patients presenting with clinical features of Vataja Grahani Roga, Irritable Bowel Syndrome and fulfill the diagnostic criteria.
- Patients between the age group of 20-70 years, irrespective of sex, religion, occupation and socio-economic status.
- Controlled non-communicable diseases and controlled metabolic disorders.

Exclusion criteria

- Uncontrolled metabolic disorders and other systemic disorders (e.g- Diabetes, Hypertension, Renal Dysfunction, Liver disease, GI bleeding,)
- Patients presenting and previously diagnosed with Inflammatory bowel diseases (Crohn's disease, Ulcerative Colitis), Diverticulitis, Hemorrhoids, and peptic ulcer.
- Patients suffering from major diseases like- CAD, Malignancy, Tuberculosis, STD, HIV.
- Patients who require surgical intervention for any condition.
- Pregnancy and lactating mother.

Assessment criteria

The criteria for assessment were done based on the improvement shown in the severity of symptoms of Vataja Grahani Roga. The score thus obtained before and after the treatment was statistically analyzed.

- **Udara shoola (Abdominal pain)**

Udara shoola (Abdominal pain)	Points
No abdominal pain	0
Occasional abdominal pain	1
Intermittent lower abdominal pain relieved by passage of stool	2
Continuous pain not relieved by passage of stool	3

- **Adhman (Abdominal distension)**

Adhman (Abdominal distension)	Points
No abdominal distension	0
Occasional abdominal distension	1
Frequently abdominal distension with increased flatulence	2
Persistent abdominal distension with gurgling sound	3

- **Punah-Punah srijet varcha (Increased frequency of stool)**

Punah-Punah srijet varcha (Increased frequency of stool)	Points
Normal once in a day	0
2-3 times in a day	1

4-6 times in a day	2
>6timesinday	3

▪ **Ama-yukta mala (Stool with mucous)**

Ama-yukta Mala (Stool with mucous)	Points
No visible mucous with stool	0
Visibble Mucous with stool	1
Passage of stool with mucous frequently	2
Passage of stool with large Quantity of mucous	3

▪ **Manasha sadanam (Mental stress)**

Manasa sadana (Mental stress)	Points
No Any stress	0
Low stress	1
Moderate stress	2
High perceived stress	3

Laboratory investigation: Stool Routine Examination (was done for all the patients to exclude other illness.)

Statistical analysis

The analysis of the effects of trial drugs was done based on Student “t” test applications. The efficacy of Chaturbhadra Kwath and Kutaj GhanaVati was assessed and was compared between both. The significance is discussed on the basis of Mean Scores, Percentages, SD, SE, ‘t’ and ‘p’ values.

Level of significance

Values

- $p = / > 0.05$ is Statically Not Significant
- $p = / < 0.05$ is Statically Significant
- $p = / < 0.01$, $p = / < 0.001$ and $p = / < 0.0001$ is Statically Highly Significant.

RESULTS

Table: Effect of Chaturbhadra Kwath in management of Vataja Grahani Roga (n=30)

Assessment Parameter	Mean BT ± SD	Mean AT ± SD	Mean difference	t value	P value	Remarks
Udara Shoola	2.17 ± 0.70	0.47 ± 0.57	1.70	13.2599	P <0.0001	S. H. S
Adhman	1.50 ± 0.68	0.40 ± 0.50	1.10	9.9188	P <0.0001	S. H. S
Ama-yukta Mala	2.17 ±	0.37 ±	1.80	20.3	P <0.	S. H. S

	0.38	0.49		600	0001	
Punah-Punah Srijet Varcha	2.03 ± 0.61	0.37 ± 0.56	1.67	16.6 987	$P < 0.0001$	S. H. S
Manasha Sadanam	1.43 ± 0.73	0.70 ± 0.47	0.73	8.93 03	$P < 0.0001$	S. H. S

Interpretation

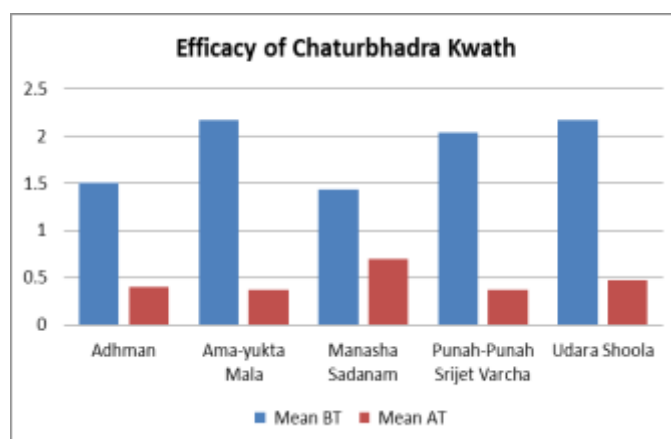
Udara shoola: The mean symptom score before treatment was 2.17 ± 0.70 which reduced to 0.47 ± 0.57 after the treatment with mean difference of 1.70 on this parameter. The effect of the trial drug in the study group was Statistically Highly Significant at $p < 0.0001$. Hence, this result indicate that Chaturbhadra Kwath is effective in managing the symptom Udara Shoola of Vataja Grahani Roga.

Adhman: The mean symptom score before treatment was 1.50 ± 0.68 which reduced to 0.40 ± 0.50 after the treatment with mean difference of 1.10 on this parameter. The effect of the trial drug in the study group was Statistically Highly Significant at $p < 0.0001$. Hence, this result indicate that Chaturbhadra Kwath is effective in managing the symptom Adhman of Vataja Grahani Roga.

Ama-Yukta mala: The mean symptom score before treatment was 2.17 ± 0.38 which reduced to 0.37 ± 0.49 after the treatment with mean difference of 1.80 on this parameter. The effect of the trial drug in the study group was Statistically Highly Significant at $p < 0.0001$. Hence, this result indicate that Chaturbhadra Kwath is effective in managing the symptom Ama-Yukta Mala of Vataja Grahani Roga.

Punah-Punah srijet varcha: The mean symptom score before treatment was 2.03 ± 0.61 which reduced to 0.37 ± 0.56 after the treatment with mean difference of 1.67 on this parameter. The effect of the trial drug in the study group was Statistically Highly Significant at $p < 0.0001$. Hence, this result indicate that Chaturbhadra Kwath is effective in managing the symptom Punah-Punah Srijet Varcha of Vataja Grahani Roga.

Manasha sadanam: The mean symptom score before treatment was 1.43 ± 0.73 which reduced to 0.70 ± 0.47 after the treatment with mean difference of 0.73 on this parameter. The effect of the trial drug in the study group was Statistically Highly Significant at $p < 0.0001$. Hence, this result indicate that Chaturbhadra Kwath is effective in managing the symptom Manasha Sadanam of Vataja Grahani Roga.



DISCUSSION AND CONCLUSION

The drug Chaturbhadrha Kwath has most of the properties like Deepaniya, Pachaniya, Samgrahi, Amadoshahara, Grahi, Anulomana, Tridoshahara, Krimighna properties. Since the trial drug shows Statistically Highly Significant in all assessment parameters of Vataja Grahani Roga, hence this drug is effective in the management of Vataja Grahani Roga.

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