

A CLINICAL STUDY TO EVALUATE THE EFFECTIVENESS OF *GANDHAKA RASAYANA* IN THE MANAGEMENT OF *GRAHANI ROGA*

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ABSTRACT

Background & Objective:

Grahani Roga is considered a *Tridoshatmaka* disorder of the digestive system, directly related to the status of Agni and diet habits, which occurs due to the vitiation of Agni (*Mandagni*) and *Doshas*. *Gandhaka Rasayana* is a standard Herbo-mineral formulation of Ayurveda, used extensively in treating various skin, wound and gastrointestinal disorders. It was believed to be significant in *Amapachana*, *Agnideepana*, *Rasayana*, *Raktaprasadana*, *Kledaghna*, and *Krimihara* activity. In this study, we evaluated the effect of *Gandhaka Rasayana* in the management of *Grahani Roga*.

Materials & Methods:

The trial drug *Gandhaka Rasayana* was administered 500 mg twice a day to 90 selected patients of *Grahani Roga*. After 45 days of trial, the effectiveness of *Gandhaka Rasayana* was statistically evaluated based on various parameters, such as Subjective, Clinical, and Objective improvement.

Results and Conclusion:

Gandhaka Rasayana was found statistically highly significant in the Clinical Symptoms of *Grahani Roga*, with 38.39% average improvement; it also had a significant effect on Agni Bala and Deha Bala, with 48.81% and 39.09% average improvement, respectively. Hence, the overall average effect on parameters of clinical improvement after

the therapeutic trial of *Gandhaka Rasayana* in 90 patients of *Grahani Roga* was 42.09%. Thus, *Gandhaka Rasayana* is a very potent drug and can be used effectively in the management of *Grahani Roga*.

Key words: *Gandhaka Rasayana, Grahani, Mandagni, Agnideepana, Amapachana.*

INTRODUCTION

Grahani Roga is a widespread issue that mainly affects those who suffer from poor hygiene and nutritional deficiencies. In this Modern era, Fast food, unhealthy diets, sedentary lifestyles, and ongoing mental stress have all contributed to impaired digestive systems, which can result in a variety of illnesses, most notably problems with digestion and absorption due to the weak digestive fire or *Agni*. Due to this compromised *Agni, Dushti of Srotas*, a structural flaw and functional impairment of *Grahani* occurs, which causes *Grahani Roga*¹. Acharya Charaka has identified *Mandagni* as the primary cause of *Grahani Roga. Mandagni vitiates doshas*. This will impede the capability of *Grahani* to operate functions normally². *Agnimandya* or *Agnivaishmya* is the primary cause of *Grahani Roga*, leading to *Amotpatti*, which in turn causes *Grahani Roga*. According to the *Chikitsa Sutras* found in *Ayurvedic* scriptures, medications like *Deepana* (which improves digestion) and *Pachana* (digestive characteristics) should be used to treat *Grahani Roga*. For *Agnideepana, Gandhaka Rasayana* is recommended in several *Ayurvedic* books. In treating *Ama, Chakradutta* has also brought up *Gandhaka Rasayana*.

Additionally, *Yogratnakar* has mentioned *Gandhaka Rasayan* in severe *Atisara, Grahani Roga*, and *Agnimandya*³ cases. Therefore, *Gandhaka Rasayana* was being applied in this trial. When we speculate on the pathophysiology, *Grahani Roga* is identified as the primary factor responsible for the malabsorption of nutrients/*rasa—Ama rasa* due to *Agni* malfunction, which causes *Karshya* and *Daurbalya* before culminating in severe weakness. For *Grahani Roga*, *Ayurveda* offers a range of therapeutic techniques, such as herbal remedies, yoga, and lifestyle modifications. As a result, the *Ayurvedic* formulation *Gandhaka Rasayana* may be helpful to patients with *Grahani Roga* since it has *Agnivardhaka* and

Rasayana qualities, which can improve health and quality of life. For this reason, this study on *Gandhaka Rasayana* was being conducted.

Taking these realisations into consideration, the current clinical study was designed to evaluate the effectiveness of *Gandhaka Rasayana* in *Grahani Roga*, which aims to understand the concept of *Grahani Roga* by examining it through the prisms of digestive processes, digestive fire, and *ama* (undigested toxins), in addition to testing the efficacy of *Gandhaka Rasayana*. In this trial, patients with *Grahani Roga* were more closely observed for minute changes during and after treatment. The parameters used for evaluation were derived from *Ayurvedic* classics and were based on scientific research. In this dissertation, every observation and outcome from every patient who has been registered is presented and statistically discussed.

AIMS AND OBJECTIVES

The following aims and objectives have guided the design of the current study: -

1. Evaluation of the effectiveness of *Gandhaka Rasayana* in the management of *Grahani Roga* based on various aetiological factors.
2. To evaluate trial drugs' safety, sustainability, and adverse drug reactions.

MATERIALS AND METHODS

The materials and techniques listed below were used to finish the current research project on *Grahani Roga* with *Gandhaka Rasayana*:

1. SELECTION OF CASES:

90 clinically diagnosed cases suffering from *Grahani Roga* were selected based on a certain proforma created in compliance with *Ayurvedic* symptomatology described in various *Ayurvedic* texts from outdoors of *Kayachikitsa, PGIA, Jodhpur, DSRRAU, Jodhpur*.

A. Sample Size Calculation and Source of Data

Based on the data, the Indian prevalence rate on the highest side (6.2%) was used to calculate the sample size. This prevalence rate is used for IBS because IBS is found closer to *Grahani Roga*. In India, IBS affects 2.7% to 6.2% of people⁴. With the help of Cochran's Formula, 90 well-identified and validated individuals with Grahani Roga were registered based on *Ayurvedic* symptomatology.

B. Inclusion Criteria

Grahani Roga was diagnosed based on clinical characteristics mentioned in *Ayurvedic* literature, such as *Charaka Samhita*. Inclusion was made based on the following points -

- a) Patients aged between 18 – 65 years of either sex.
- b) Patients having the following symptoms of *Grahani Roga* –
 1. *Atisrishtam Vibaddham Va Dravam* (Irregular bowel habits)
 2. *Ama Mala Pravritti* (Sticky stool)
- I. *Durgandhita Mala Pravritti* (fowl-smelling stool)
- II. *Pichchhila Mala Pravritti* (Mucous mixed stool)
 3. *Vibaddha (Constipation)*
 4. *Dravam* (Loose Stool)
 5. *Udara Shoola* (Abdominal pain)
 6. *Udara Gaurav* (Heaviness in the abdomen)
 7. *Ashthi-Parva ruka* (Bodyache)
 8. *Aruchi* (Anorexia)
 9. *Atopa* (Bloating)
 10. *Tikta-Amla Udgar/Vidaha* (Acid eructation/Burning sensation in Abdomen)
 11. *Jwara* (Fever)
 12. *Karshya/ Balakshaya* (Weakness)

- c) Patient willing to sign the consent form.

C. Exclusion Criteria

Patients having the following conditions were not selected for the study -

- a) Age below 18 and above 65 years.
- b) Patients suffering from Intestinal tuberculosis and severe ulceration in the stomach.
- c) Patients with complicated and chronic Renal or Liver disorders or any other serious illness.
- d) Individuals receive corticosteroids, antidepressants, anticholinergics, or any other medication for a more extended period.

D. Adverse Effect Evaluation Criteria

To evaluate the adverse effects of the trial drug, an ADR format was developed to report such cases during the clinical trial.

2. ADMINISTRATION OF TRIAL DRUG:

Gandhaka Rasayana was prepared at the Pharmacy of PGIA, DSRRAU, Jodhpur, taken from *Yog Ratnakar*. To prepare it, *Shuddha Gandhaka* (powdered) was trituration (*Bhavana*) with the decoction of *Chaturjata* (group of four plants, i.e. *Ela*, *Twak (Dalchini)*, *Patra* (Tejpat) and *Nagakeshar*), *Guduchi*, *Haritaki*, *Bibhitaki*, *Amalaki*, *Shunthi* and fresh juice (Swarasa) of *Bhringraj* and *Ardraka swarasa* respectively for eight times each^{5,6}. Every time, *Gandhaka* was dry, powdered and weighed. Selected patients of *Grahani Roga* were randomly assigned to a single group, where they received *Gandhaka Rasayana* in the dose of 500 mg twice a day with water for 45 days.

Table No. 1: Showing the Ingredients of Trial Drug - Gandhaka Rasayana

S.no	Drug name	Botanical /English Name	Used part	Ratio
1.	<i>Gandhaka</i>	Sulphur	-	3 KG
2.	<i>Go Ghrita</i>	Cow Ghee		
3.	<i>Go Dugdha</i>	Cow Milk	-	Q.S.
4.	<i>Ela</i>	<i>Elettaria cardamomum</i>	Fruit seeds	Q.S.
5.	<i>Twak (Dalchini)</i>	<i>Cinnamomum verum</i>	Bark	Q.S.
6.	<i>Tejpatra</i>	<i>Cinnamomum tamala</i>	Leaf	Q.S.
7.	<i>Nagakessara</i>	<i>Mesua ferrea</i>	Stigma	Q.S.
8.	<i>Guduchi</i>	<i>Tinospora cordifolia</i>	Stem	Q.S.
9.	<i>Haritaki</i>	<i>Terminalia chebula</i>	Fruit	Q.S.
10.	<i>Vibhitaki</i>	<i>Terminalia bellirica</i>	Fruit	Q.S.
11.	<i>Amalaki</i>	<i>Embilica officinalis</i>	Fruit	Q.S.
12.	<i>Shunthi</i>	<i>Zingiber officinale</i>	Rhizome	Q.S.

13.	Bhringraja	Eclipta alba	Whole plant	Q.S.
14.	Ardraka	Zingiber officinale	Rhizome	Q.S.
15.	Sharkara	Sugar	-	Q.S.

Table No. 2: Showing Rasapanchaka of Gandhaka Rasayana's constituents⁷.

S.N.	Ingredient	Rasa	Guna	Veerya	Vipaka	Doshagnata	Karma
1.	Gandhaka	Madhur (R.R.S) Katu, Tikta (A.P)	Sara, Snigdha	Ushna	Katu	Kapha-Vatahara Pittavardhaka	Amanashaka, Vishahara, Krumighna, Shodaka, Janthujith
2.	Go Ghrita	Madhur	Snigdha	Sheeta	Madhur	Vatapitta hara	Daha shamaka
3.	Godugdha	Madhur	Snigdha, Guru	Sheeta	Madhur	Vatapittaghna	Ojovardhaka
4.	Sharkara	Madhur	Snigdha, Guru	Sheeta	Madhur	Vatapittaghna	Dahanashaka
	Bhavana Dravya						
1.	Dalchini	Katu, Tikta, Madhur	Laghu, RukshaTikshna	Ushna	Katu	Kaphavataghna	Deepana, Pachana, Vatanuloman
2.	Ela	Katu, Tikta	Laghu, Ruksh	Ushna	Katu	Tridoshagna	Rochaka, Deepana
3.	Tejpatra	Katu, Tikta, Madhur	Laghu, RukshaTikshna	Ushna	Katu	Kaphavataghna	Deepana, Pachana, Vatanuloman
4.	Nagakesar	Kashaya	Laghu, Ruksha	Ushna	Katu	Kaphapittaghna	Vishaghna
5.	Guduchi	Tikta, Kashaya	Laghu, Snigdha	Ushna	Madhur	Tridosha shamaka	Rasayana, Dahaghna
6.	Haritaki	Kashaya pradana	Laghu, Ruksha	Ushna	Madhur	Tridoshagna	Deepana, Pachana, Anulomana
7.	Vibhitaka	Kashaya, Madhur	Laghu, Ruksha	Ushna	Madhur	Kaphavataghna	Bhedana, Keshya, Chakshushya
8.	Amalaki	Amla Pradhan	Laghu, Ruksha	Sheeta	Madhur	Tridoshaghna	Rochaka, Sara, Chakshushya
9.	Shunti	Katu	Laghu, Snigdha	Ushna	Madhur	Vatakaphagna	Grahi, Vrishya
10.	Ardraka	Katu	Laghu, Snigdha	Ushna	Madhur	Vatakaphagna	Deepana, Amapachana, Vrishya
11.	Bhrungaraj	Tikta, Katu	Ruksha	Ushna	Katu	Kaphavataghna	Vishaghna, Rasayana, Balya

Dietary restrictions:

During the trial period, all the registered patients of Grahani roga were directed to adhere to dietary restrictions and other activities as described in Ayurvedic classics.

Informed consent:

The patients agreed to participate in the study after the information was explained to them in their languages in an understandable and non-technical manner.

Method of Study and Approval:

The present study on Grahani Roga followed a Randomized, Clinical, Open design and received

approval from the Institutional ethics committee and CTRI registration.

OBSERVATIONS & RESULTS

The registered patients' demographic, Psychological, constitutional, and Clinical profiles were observed before and after treatment, then statistically analysed, and the results were made.

DEMOGRAPHIC PROFILE:

Maximum number of patients (39.21%) were recorded third and fourth decade (30.00% and 35.56% respectively) of life and 62.22% patients were male, 96.67% belonged to the Hindu community, 91.11% were married, 84.44% belonged to urban area, 54.44% were graduate, having 42.22% govt—job, above the

poverty line (Middle Class 53.33% and Upper class 16.67%). Maximum patients, 59 (65.56%) were Vegetarian, a maximum of 48.89% of patients had no addiction.

CONSTITUTIONAL & PSYCHOLOGICAL PROFILE:

The majority of patients (52.22%) did not participate in Vyayama, were observed with Alpa Nidra, i.e. 35.56%, majority of patients (57.78%) were Samyaka (normal) Mutra Pravritti, 84.44% had irregular Mala Pravritti, along with Mridu Koshtha 54, (60.00%). In this study, the maximum number of patients (54.44%) had sedentary occupations, and 31.11% had a tensive emotional makeup. Majority of patients (57.78%) have a Madhyam Sara (physique), 51.11% have Madhyama Samhanan (body type), 48.89% have Madhyam Satva, 65.56% have Madhyam Satmya and 54.45% had Madhyam Pramana, had 50.00% Madhyama Vyayama shakti, were of Mandagni (56.67%) along with Avara type of Abyavarana and Jarana Shakti, 14 (15.56%). The majority of patients were found with the Vata-Pitta constitution (45.56%) and were found to be from Rajasika or Tamasika mental disposition.

CLINICAL PROFILE

Symptoms of Grahani Roga: Atisrishtam Baddham va Drava Mala (irregular bowel habit) and Ama mala and Picchila/ Durgandhit Mala (Sticky stool with mucus and fowl smelling), found in 100% patients whereas Vibandha (Constipation) in 70, (77.78%), Drava Mala (Loose Motion) in 20 (22.22%), Udara

Shoola (Pain abdomen) in 48 (53.33%), Udara Gaurav (Heaviness in the abdomen) in 74 (82.22%), Asthi Parv Ruka (Body ache) in 22 (24.44%), Aruchi (Anorexia) in 27 (30%), Atopa (Bloating) in 65 (72.22%), Tikta Amla Udgar/Vidah (Acid eructation/Burning sensation in Abdomen) 35 (38.89%), Jwara (Fever) 7 (7.77%), and Karshya/ Balakshaya (Weakness) 65 (72.22%) patients.

RESULTS

By statically analysing the observations described in the previous sections, the following results were obtained which are shown as follows-

A. SUBJECTIVE IMPROVEMENT:

All registered patients of Grahani Roga were enquired about the symptomatic relief, feeling of well-being, physical and mental fitness and proper bowel habits. Out of 90 patients, after the completion of treatment with Gandhaka Rasayana, moderate relief to treatment was found in 56 (62.22%) patients, 14 (15.56%) patients were excellent relief to treatment, 12 (13.33%) patients showed mild relief to treatment and 8 (8.89%) patients have shown no relief to the treatment, which indicates a significant contribution of Ayurvedic preparations, Gandhaka Rasayana to manage effectively the Grahani disease.

B. CLINICAL IMPROVEMENT:

All the selected symptoms of Grahani Roga, which were included in inclusion criteria in registered patients, were observed and graded into different scores using the following "Symptom Rating Scale" as shown below –

Table No. 3: Showing Symptoms Rating Scale for Grahani Roga

S.N.	Grade	Marking	Score
1.	Absent	-	0
2.	Mild	+	1
3.	Moderate	++	2
4.	Severe	+++	3
5.	Extremely marked	++++	4

Results of clinical improvement in 90 cases of Grahani are presented in three following categories below: -

1. Effectiveness of Therapeutic Trial on Clinical Symptoms:

Table No. 4: Showing the Effectiveness of Gandhaka Rasayana on Roga Bala (Symptoms of Grahani) in 90 Cases using Wilcoxon signed rank test.

S N	Variant	Mean BT	Mean AT	Mean Difference	SD	SE	Z score	% Improvement	P value
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1	Atisrishtam Vibaddham Va	2.98	1.91	1.07	0.70	0.07	-3.19	35.82	<0.001
2	Ama/ Durgandhita Pichchhila Mala	3.36	2.04	1.31	0.70	0.07	-3.50	39.07	<0.001
3	Vibaddha	3.34	2.20	1.14	0.61	0.06	-4.34	34.22	<0.001
4	Dravam	3.28	2.02	1.26	0.71	0.07	-3.35	38.31	<0.001
5	Udara Shoola	3.17	2.04	1.12	0.67	0.07	-3.62	35.44	<0.01
6	Udara Gaurava	3.36	2.18	1.18	0.61	0.06	-4.32	35.10	<0.001
7	Ashthi-Parva ruka	3.04	1.76	1.29	0.84	0.08	-2.34	42.34	<0.01
8	Aruchi	3.34	2.08	1.27	0.65	0.06	-3.88	37.87	<0.001
9	Atopa	3.17	1.92	1.24	0.78	0.08	-2.80	39.30	<0.01
10	Tikta-Amla Udgar/Vidaha	2.98	1.73	1.24	0.68	0.07	-3.16	41.79	<0.01
11	Jwara	1.29	0.74	0.50	0.60	0.06	-1.64	38.68	<0.01
12	Karshya/ Balakshaya	3.28	1.88	1.40	0.79	0.08	-2.75	42.71	<0.01

2. Effect of Therapeutic Trial on Agni Bala:

Table No. 5: Showing the Effectiveness of Gandhaka Rasayana on Agni Bala in 90 Cases of Grahani using Wilcoxon signed rank test.

S.N.	Variant	Mean BT	Mean AT	Mean Difference	SD	SE	Z score	% Improvement	P value
1	Ruchi	3.34	2.08	1.27	0.65	0.06	-3.88	37.87	<0.001
2	Jarana Shakti	3.88	1.70	2.18	0.92	0.09	-2.04	56.16	<0.05
3	AbhyavAharana Shakti	3.77	1.86	1.91	0.89	0.09	-2.30	50.74	<0.05
4	Vata Mootra Purisha Retasam Mukti	3.50	1.73	1.77	0.87	0.09	-2.23	50.48	<0.05

3. Effect of Therapeutic Trial on Deha Bala:

Table No. 6: Showing the Effectiveness of Gandhaka Rasayana on Deha Bala in 90 Cases of Grahani using Wilcoxon signed rank test.

	Variant	Mean BT	Mean AT	Mean Difference	SD	SE	Z score	% Improvement	P value
1.	Bala Vriddhi	3.28	1.88	1.40	0.79	0.08	-2.75	42.71	<0.01
2.	Swarav Varna Yoga	3.29	2.12	1.17	0.96	0.10	-2.25	35.47	<0.05

C. IMPROVEMENT IN LABORATORICAL PARAMETERS

(I) Effect of therapeutic trial on Hematological parameters:

After observing the results of haematological changes occurring in 90 patients, it is clear that total leukocyte count decreases after treatment. By analysing statistically, it has shown a highly significant improvement (16.17%, $p < 0.001$), proving the Gandhaka Rasayana's anti-inflammatory action. The rest of the haematological changes were insignificant after the trial.

(II) Effect of therapeutic trial on Stool examination

Based on pathological reports of stool examination, it was noticed that ova and cyst were present in the stool of 7 cases at the time of registration before treatment. But after the treatment, it became nil, proving the homicidal action of Gandhaka Rasayana. **THE OVERALL AVERAGE EFFECT OF THERAPEUTIC TRIAL:**

Out of 90 patients, after treatment with Gandhaka Rasayana, the average effect on Clinical Symptoms was 38.39%, the impact on Agni Bala was 48.81%, and the effect on Deha Bala was 39.09%. Hence, the

overall average impact on parameters of clinical improvement of a therapeutic trial of Gandhaka Rasayana in 90 patients of Grahani Roga was 42.09%.

Table No. 7: Showing the overall effectiveness of Gandhaka Rasayana in 90 cases of Grahani based on various parameters.

	Variants	Parameters	% Relief	Overall Improvement
1.	Subjective Improvement	Mild Relief	20%	
		Moderate Relief	62%	
		Significant Relief	18%	
2.	Clinical Improvement	Symptomatic	38.39%	42.09%
		Agni Bala	48.81%	
		Deha Bala	39.09%	
3.	Objective Improvement	Hb gm %	-0.88%	
		ESR	20.14%	
		TLC	16.17%	

DISCUSSION

Satisfactory treatment is not available for diseases similar to Grahani in the modern system of medicine as the disease is managed symptomatically, and the recurrence rate is very high, along with plenty of complications which are seen frequently. In contrast, a detailed description of the management of Grahani Roga is available in the various Classics of Ayurveda. The Ayurvedic treatment of Grahani Roga, including all diseases mentioned above in modern science, as mentioned in Ayurveda, is very potent and produces long-lasting beneficial results in patients. That's why it was decided to evaluate specific Ayurvedic preparations (which could be cheap, safe, effective, readily available and without any side effects) on various scientific parameters to treat Grahani disease. Based on the above objectives, it was decided to evaluate clinically "Gandhaka Rasayana" in this research work.

Discussing the data to evaluate statistically the effect of trial drug Gandhaka Rasayana in 90 patients of Grahani Roga, in the present study, highly significant ($p < 0.001$) symptomatic relief was observed in *Atisrishtam Vibaddham Va Dravam* (Irregular bowel habits) 35.82%, *Ama Mala Pravritti / Durgandhita - Pichchhila Mala* (Sticky/ Mucous mixed stool) 39.07%, *Vibaddha (Constipation)* 34.22%, *Dravam*

(Loose Stool) 38.31%, *Udara Gaurav* (Heaviness in abdomen) 35.10%, *Aruchi* (Anorexia) 37.87%. *Udara Shoola* (Abdominal pain) 35.44%, *Asthi-Parva ruka* (Bodyache) 42.34%, *Atopa* (Bloating) 39.30%, *Tikta-Amla Udgar/Vidaha* (Acid eructation/Burning sensation in Abdomen) 41.79%, *Jwara* (Fever) 38.68%, *Karshya/ Balakshaya* (Weakness) 42.71% also witnessed highly significant ($p < 0.01$) improvement.

As shown above, these results were observed after administering the trial drug on the first follow-up, but very few patients were observed with no results. Still, after continuing the trial medicines, they responded to 2nd follow-up. It was also noticed that some symptoms got quick responses while others showed delayed responses. The symptoms which responded very quickly were *Ama Mala Pravritti / Durgandhita - Pichchhila Mala* (Sticky/ Mucous mixed stool), *Dravam* (Loose Stool), *Aruchi* (Anorexia), and *Udara Shoola* (Abdominal pain) etc. while the symptoms like *Atisrishtam Vibaddham Va Dravam* (Irregular bowel habits), *Vibaddha (Constipation)*, *Udara Gaurav* (Heaviness in abdomen), *Asthi-Parva ruka* (Bodyache) *Atopa* (Bloating), *Tikta-Amla Udgar/Vidaha* (Acid eructation/Burning sensation in Abdomen), *Jwara* (Fever), *Karshya/ Balakshaya* (Weakness) etc. responded after some time. The overall percentage of clinical improvement (Roga

Bala) was 38.39%, $p < 0.001$), on *Dehabala* was 39.09% and on *Agni Bala* was 48.81%. Finally, a 42.09 % overall improvement was observed in a present clinical trial. So, Moderate or significant improvement was found during this research. It proved the *Deepana*, *Pachana*, *Rasayana* and *Amahara* properties of the trial drug *Gandhaka Rasayana*.

Based on statistical calculations of parameters of *Deha Bala*, it was observed that the patients treated by *Gandhaka Rasayana* showed highly significant results ($p < 0.001$) in the *Ruchi* (Interested in consuming food) 37.87% and significant ($p < 0.05$) improvement found in the parameters of *Jarana Shakti* (Digestive capacity) 56.16%, *Abhyavaharana Shakti* (food consuming capacity) 50.74% and *Vata Mootra Purisha Retasam Mukti* (Normal Passing of Urine and stool) 50.48%. It proved the *Agnivarhdaka* properties of *Gandhaka Rasayana*.

Based on statistical calculations of parameters of *Agni Bala*, it was observed that the patients treated by *Gandhaka Rasayana* showed highly significant results ($p < 0.01$) in the *Bala Vriddhi* (Strength of Body) 37.87% and significant ($p < 0.05$) improvement found in the parameters of *Swara Varna Yoga* (Normal Speech and complexion) 56.16%, It proved the *Rasayana* properties of *Gandhaka Rasayana*.

In the context of *Grahani Roga*, the primary issue is *Agni Dushti* (i.e. vitiation of digestive fire), often leading to *Mandagni*, which can ultimately result in the formation of *Ama* and potentially *Suktapaka*, resulting in the manifestation of *Grahani*⁸. Through the perspective of etiopathogenesis of *Grahani*, *Shuddha Gandhaka* has *Agnideepaka*, *Amapachaka*, *Vishaghna*, *Rasayana*, *Balaya*, *Krimighna*, and *Shodaka* properties, which are further enhanced by *Bhavna* (trituration) of 11 herbal ingredients of *Gandhaka Rasayana*⁹. The phytochemical constituents of *Bhavana dravya* improve the characteristics of *Gandhaka* and increase its effects. *Gandhaka*, one of the critical components of *Gandhaka Rasayana*, acts on all *Dhatus* by its *Rasayana* property and activates the *Dhatwagnis*¹⁰. It proved that the various ingredients of *Gandhaka*

Rasayana possess all the necessary qualities essential to manage *Grahani*.

Ayurvedic text *Yogratanakara*¹¹ indicates *Gandhaka Rasayana* in the treatment of *Atisara*, *Grahani*, and *Arshas*, manifested mainly by the *Agnimandhya*. *Agni* becomes weak in *Grahani Roga*. According to classics of *Ayurveda*, properties of *Gandhaka Rasayana* include *Dipana* (stimulates *Agni*), *Pachana* (*Digestant*), *Laghu* (lightness in the body), *Aruchinashaka*, *Antidiarrhoeal*, *Jwaraghna* (*Antipyretic*), *Vrishya* (enhances strength and vigour), *Rasayana* (antioxidants). It acts on the fundamental level of *Agni* by normalising the vitiated *Doshas* in the intestine and probably by its anti-inflammatory and germicidal effects. *Gandhaka Rasayana* reduces the *Ama Dosh*, which is work on the root cause of the *Grahani*.

Cumulatively, *Gandhaka Rasayana*¹² possesses *Katu* and *Kashaya rasa*, *Laghu* and *Aruksha Guna*, *Ushna Veerya*, *Madhura Vipaka* and *Tridoshara* (works to balance all the three *Doshas*) properties. Despite having *Ushnaveerya* due to its *Madhura Vipaka* and presence of *Dahashamaka dravyas* like *Giloya* and *Sharkara*, it does *Daha-shamana*. The drugs included in *Gandhaka Rasayana*, like *Dalchini*, *Tejapatra*, *Haritaki*, *Shunthi*, and *Ardraka*, enhance the *Deepana*, *Pachana* and *Vatanulomana* properties, which acts on *Mandagni*, the foremost cause to manifest *Grahani Roga*. *Ela* and *Amalaki* enhance the *Rochana Guna*, which relieves the symptoms of *Aruchi* in *Grahani Roga*. *Bhavana Dravya*, like *Vibhitaka*, *Guduchi*, *Amalaki* and *Bhringraj*, increases the *Rasayanaguna* in *Gandhaka*. Thus, *Gandhaka Rasayana* acts as a potent *Rasayana*. *Bhringraj* enhances *Balya Guna*, which increases the strength of the body, which is found less in the *Grahani Patient*. *Nagakeshar* and *Bhringraj* enhance the *Vishghna Guna* of *Gandhaka Rasayana*. As *Raktapachana* and *Sthambana*, *Nagakeshara* is beneficial for illnesses related to *Daha* and *Srava*.

Most of the herbs in *Bhavana Dravyas* have *Madhura Vipaka*. While *Rasa* typically affects particular organs, *Vipaka* impacts the entire body, so we can say that *Gandhaka Rasayana* works on *Dosha*, *Dhatu*, and

Mala. That's why Gandhaka Rasayana improves and fortifies Dhatwagni (digestive fire) and increases Dhatubala (strength of body tissues), in addition to aiding in the breaking of *Grahani's Samprapti*.

CONCLUSION

It can be concluded that *Gandhaka Rasayana* produces highly significant results in *Grahani Roga*. Every patient very well tolerated Gandhaka Rasayana. None of the patients reported any harmful or adverse consequences. Therefore, *Gandhaka Rasayana* is a very potent drug and can be used effectively in the management of *Grahani Roga*.

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