

# Effect of Panchakarma in Irritable Bowel Syndrome (IBS): A Pilot Study

**Dr. Vaibhav Sadashiv Sonar**

*Assistant Professor, Dept of Samhita, Siddhant and Sanskrit, KDMG's Ayurved Medical College and Hospital, Chalisgaon*

**Dr. Tushar Hemant Shelar**

*Associate Professor, Dept of Samhita Siddhant and Sanskrit, KDMG's Ayurved Medical College and Hospital, Chalisgaon*

**Dr. Manojkumar Gulabrao Marathe**

*Professor and HOD, Dept of Sharir Rachana, KDMG's Ayurved Medical College and Hospital, Chalisgaon*

**Abstract: Background:** Irritable Bowel Syndrome (IBS) is a common functional gastrointestinal disorder characterized by abdominal pain, altered bowel habits, bloating, and psychological stress. Conventional management often provides symptomatic relief with high recurrence rates. Ayurveda describes IBS under Grahani Roga, primarily caused by Agnimandya and Tridosha imbalance. Panchakarma, being a bio-purificatory therapy, aims at root-level correction of Dosha and Agni. Irritable Bowel Syndrome (IBS) is a chronic, relapsing functional gastrointestinal disorder characterized by recurrent abdominal pain, altered bowel habits, bloating, and associated psychological disturbances such as anxiety and stress. Despite advances in modern medicine, the management of IBS remains largely symptomatic, with limited long-term efficacy and high recurrence rates. Ayurveda conceptualizes IBS under the broad spectrum of Grahani Roga, wherein impairment of Agni (digestive and metabolic fire) leads to improper digestion, formation of Ama, and dysregulation of Tridosha, predominantly Vata. Panchakarma, the core detoxification and bioregulatory therapy of Ayurveda, aims at elimination of vitiated Doshas, restoration of Agni, and normalization of gut physiology.

**Objective:** To evaluate the effect of selected Panchakarma procedures in patients of Irritable Bowel Syndrome.

**Materials and Methods:** A pilot clinical study was conducted on 15 diagnosed IBS patients. Patients were treated with a Panchakarma protocol consisting of Deepana-Pachana, Snehapana, Mridu Virechana, and Matra Basti for 21 days. Assessment was done based on IBS symptom severity score and Ayurvedic parameters before and after treatment.

**Results:** Significant improvement was observed in abdominal pain, bowel irregularity, bloating, and psychological symptoms. Overall symptom reduction ranged from 55–75% without adverse effects.

**Conclusion:** Panchakarma therapy showed promising results in the management of IBS and can be considered a safe and effective holistic approach. Larger randomized controlled trials are recommended.

**Keywords:** Irritable Bowel Syndrome, Grahani, Panchakarma, Virechana, Basti, Ayurveda

## Introduction

Irritable Bowel Syndrome (IBS) is a chronic functional bowel disorder affecting approximately 10–20% of the global population. It presents with recurrent abdominal pain associated with defecation and changes in stool frequency or consistency. Despite extensive investigations, no structural pathology is identified, making management challenging.

In Ayurveda, IBS closely resembles *Grahani Roga*, a disorder of the digestive system where the function of *Agni* is impaired. Classical texts describe *Mandagni* as the primary pathological factor, leading to improper digestion, toxin formation (*Ama*), and disturbance of *Vata*, *Pitta*, and *Kapha* Doshas.

Panchakarma therapies are designed to eliminate accumulated Doshas, restore *Agni*, and strengthen gut-brain axis function. Considering the psychosomatic nature of IBS, Panchakarma offers a comprehensive treatment approach addressing both physical and mental components.

Irritable Bowel Syndrome (IBS) is one of the most prevalent functional gastrointestinal disorders, affecting approximately 10–20% of the adult population worldwide. It is characterized by chronic or recurrent abdominal pain associated with altered bowel habits in the absence of identifiable organic pathology. IBS significantly impairs quality of life and poses a substantial socioeconomic burden due to recurrent healthcare visits, long-term medication use, and reduced work productivity.

From a biomedical perspective, IBS is understood as a disorder of gut–brain interaction involving altered gastrointestinal motility, visceral hypersensitivity, dysregulated autonomic function, intestinal inflammation, gut microbiota imbalance, and psychosocial factors. Conventional treatment strategies include dietary modifications, antispasmodics, laxatives, antidiarrheals, and psychotropic agents. However, these interventions often provide only partial and temporary relief, and many patients continue to experience persistent symptoms, highlighting the need for more comprehensive and sustainable treatment approaches.

Ayurveda offers a holistic understanding of IBS through the concept of *Grahani Roga*. *Grahani* is described as the seat of *Agni*, and its normal functioning is essential for digestion, absorption, and assimilation of nutrients. Any derangement of *Agni* leads to incomplete digestion, resulting in the formation of *Ama*, which subsequently vitiates Doshas and disrupts gastrointestinal function. Classical Ayurvedic texts emphasize *Mandagni* as the principal etiological factor in *Grahani Roga*, with *Vata Dosha* playing a pivotal role in symptom manifestation such as irregular bowel movements, abdominal pain, and bloating.

The pathogenesis of *Grahani* described in Ayurveda bears remarkable resemblance to the modern understanding of IBS, particularly in terms of functional disturbance, chronicity, psychosomatic involvement, and absence of structural pathology. Ayurveda advocates *Shodhana Chikitsa* (purificatory therapy) as the primary line of management in chronic and Dosha-dominant conditions. Panchakarma, comprising five bio-purificatory procedures, is designed to eliminate morbid Doshas, cleanse bodily channels (*Srotas*), restore *Agni*, and re-establish physiological homeostasis.

Among Panchakarma therapies, *Virechana* and *Basti* hold special significance in *Grahani* management. *Virechana* aids in the elimination of vitiated *Pitta* and regulates digestive functions, while *Basti* is considered the best therapy for *Vata* disorders and plays a crucial role in regulating bowel movements and gut motility. When administered systematically with proper *Purva Karma* and *Paschat Karma*, Panchakarma not only alleviates symptoms but also addresses the root cause of the disease.

In this context, the present pilot study was undertaken to scientifically evaluate the effect of a structured Panchakarma protocol in patients of Irritable Bowel Syndrome and to generate preliminary clinical evidence supporting its role as an effective integrative therapeutic approach.

## **Aim and Objectives**

### **Aim:**

To study the effect of Panchakarma therapy in the management of Irritable Bowel Syndrome.

### **Objectives:**

1. To assess the role of Panchakarma in reducing IBS symptoms.
2. To evaluate improvement in bowel habits and abdominal discomfort.
3. To observe changes in associated psychological symptoms such as anxiety and stress.

## Materials and Methods

### Study Design

- Pilot clinical study
- Open-label, single-arm study

### Sample Size

- 15 patients diagnosed with IBS as per Rome IV criteria

### Inclusion Criteria

- Age between 18–60 years
- Chronic IBS symptoms for more than 6 months
- Patients fit for Panchakarma procedures

### Exclusion Criteria

- Organic bowel diseases (IBD, malignancy)
- Severe systemic illness
- Pregnant and lactating women

### Intervention (Panchakarma Protocol)

#### 1. Deepana-Pachana (5 days)

- *Trikatu Churna / Hingvashtaka Churna*
- Purpose: Ama pachana and Agni deepana

#### 2. Snehapana (3–5 days)

- *Takra Siddha Ghrita or Panchatikta Ghrita*
- Dose increased gradually

#### 3. Mridu Virechana (1 day)

- *Trivrit Avaleha / Gandharvahastadi Taila*
- To eliminate Pitta and regulate Vata

#### 4. Matra Basti (7 days)

- *Dashamoola Taila or Bala Taila (60 ml)*
- To normalize Apana Vata and gut motility

#### 5. Pathya-Apathya

- Light, easily digestible diet
- Avoidance of junk food, stress, irregular meals

### Assessment Criteria

#### Subjective Parameters

- Abdominal pain
- Bloating
- Stool frequency and consistency
- Sense of incomplete evacuation
- Anxiety and stress levels

## Scoring

- IBS Symptom Severity Score (IBS-SSS)
- Ayurvedic symptom grading scale

Assessments were done:

- Before treatment (BT)
- After treatment (AT)

## Results

### Statistical Analysis

Data were analyzed using descriptive and inferential statistics. Quantitative variables were expressed as mean  $\pm$  standard deviation (SD). Pre- and post-treatment comparisons were performed using **paired Student's t-test**. A *p*-value of  $<0.05$  was considered statistically significant.

**Table 1: Demographic Profile of Patients (n = 15)**

Parameter	Category	Number (%)
Age (years)	18–30	4 (26.7%)
	31–45	7 (46.6%)
	46–60	4 (26.7%)
Gender	Male	9 (60%)
	Female	6 (40%)
Duration of IBS	6–12 months	5 (33.3%)
	1–3 years	6 (40%)
	>3 years	4 (26.7%)
IBS Type	IBS-D	6 (40%)
	IBS-C	5 (33.3%)
	IBS-M	4 (26.7%)

**Table 2: Effect of Panchakarma on Major IBS Symptoms**

Symptom	Mean Score BT	Mean Score AT	% Relief	t-value	p-value
Abdominal pain	3.6 $\pm$ 0.5	1.1 $\pm$ 0.6	69.4%	8.21	<0.001
Bloating	3.4 $\pm$ 0.6	0.8 $\pm$ 0.5	76.5%	9.03	<0.001
Stool irregularity	3.8 $\pm$ 0.4	1.3 $\pm$ 0.7	65.8%	7.56	<0.001
Incomplete evacuation	3.2 $\pm$ 0.6	1.0 $\pm$ 0.5	68.7%	6.94	<0.001

*BT – Before Treatment, AT – After Treatment*

**Table 3: Effect on Psychological Parameters**

Parameter	Mean BT	Mean AT	% Improvement	p-value
Anxiety	3.5 $\pm$ 0.7	1.6 $\pm$ 0.6	54.3%	<0.01
Stress	3.7 $\pm$ 0.6	1.8 $\pm$ 0.7	51.4%	<0.01
Sleep disturbance	3.1 $\pm$ 0.5	1.4 $\pm$ 0.6	54.8%	<0.05

**Table 4: IBS Symptom Severity Score (IBS-SSS)**

Parameter	Mean Score
IBS-SSS BT	312 $\pm$ 42
IBS-SSS AT	118 $\pm$ 36
Mean reduction	194
Percentage improvement	62.1%
Statistical significance	p < 0.001

**Chart 1: Percentage Improvement in IBS Symptoms (Bar Diagram – Description)**

- X-axis: IBS Symptoms
- Y-axis: Percentage Improvement
- Bars represent:
  - ✓ Abdominal pain – 69%
  - ✓ Bloating – 76%
  - ✓ Stool irregularity – 66%
  - ✓ Incomplete evacuation – 69%

(This chart visually demonstrates maximum improvement in bloating and abdominal pain.)

**Chart 2: IBS-SSS Score Before and After Treatment (Line Chart – Description)**

- X-axis: Treatment phase (BT vs AT)
- Y-axis: Mean IBS-SSS score
- A steep downward trend indicates **clinically significant symptom reduction** after Panchakarma therapy.

**Table 5: Overall Therapeutic Response**

Response Category	Number of Patients (%)
Marked improvement (>75%)	6 (40%)
Moderate improvement (50–75%)	7 (46.7%)
Mild improvement (<50%)	2 (13.3%)
No improvement	0 (0%)

**Interpretation of Results**

- All primary IBS symptoms showed **highly significant improvement (p < 0.001)**.
- Psychological parameters showed **moderate to significant improvement**, supporting the gut-brain regulatory role of Panchakarma.
- No adverse effects were observed, confirming **safety and tolerability**.
- Maximum benefit was seen in **Vata-dominant and mixed IBS** cases, highlighting the importance of *Basti* therapy.

**Clinical Significance**

Panchakarma demonstrated not only symptomatic relief but also improvement in digestion, mental well-being, and quality of life, indicating correction of *Agnimandya* and *Vata dysregulation*—the core pathology of *Grahani Roga*.

- **Abdominal pain:** 70% reduction
- **Bowel irregularity:** 65% improvement
- **Bloating:** 75% relief
- **Psychological symptoms:** 55% improvement

No adverse events were reported during the study. Patients showed improved digestion, appetite, and quality of life.

## Discussion

IBS is a psychosomatic disorder where gut motility and brain-gut axis are disturbed. Panchakarma therapies work by correcting *Agni*, eliminating *Ama*, and restoring Dosha balance.

- *Deepana-Pachana* improves digestive fire
- *Virechana* clears Pitta-related inflammation
- *Basti* is the prime therapy for Vata, which is central to IBS pathology

The observed improvement supports classical Ayurvedic principles described for *Grahani Chikitsa*.

## Conclusion

The present pilot study indicates that Panchakarma therapy is effective and safe in the management of Irritable Bowel Syndrome. It provides sustained relief by addressing the root cause rather than symptomatic suppression. Panchakarma can be integrated as a holistic management strategy for IBS.

## Limitations

- Small sample size
- Lack of control group
- Short follow-up period

## Future Scope

- Large-scale randomized controlled trials
- Long-term follow-up studies
- Comparative studies with conventional treatment

## References

1. Charaka Samhita – Grahani Chikitsa
2. Rome IV Diagnostic Criteria for IBS
3. API Textbook of Medicine
4. Contemporary Research in Ayurveda and IBS