



## CLINICAL STUDY TO EVALUATE THE EFFICACY OF 'DHANYADI YOGA' AND 'JATAMANSI ARKA' IN THE MANAGEMENT OF VATIKA GRAHANI WITH SPECIAL REFERENCE TO IRRITABLE BOWEL SYNDROME

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### ABSTRACT

**Introduction:** Irritable bowel syndrome (IBS) is a motility disorder of gastrointestinal tract, essentially of functional nature with definite psychosomatic basis. Prevalence of IBS varies from 4.2%-7.5%, 7.7%-12.9% and 11%-14% in India. The highest prevalence was observed among educated and more affluent people. Across Asia, IBS is more prevalent in younger age groups, but, unlike in Western studies. The aetio-pathogenesis and the symptoms of IBS suggest the involvement of *Vata Dosha*. **Aims:** To evaluate the efficacy of '*Dhanyadi Yoga*' and '*Jatamansi Arka*' in the management of *Vatika Grahani* w.s.r. to Irritable Bowel Syndrome. **Materials and Methods:** The study was

conducted in 30 clinically diagnosed patients of *Vatika Grahani*. In group A patients were treated with *Dhanyadi Yoga* 2 tab (500 mg each) thrice a day with lukewarm water before meal. In group B patients were treated with *Dhanyadi Yoga* 2 tab (500 mg each) thrice a day, with lukewarm water before meal and 15 ml *Jatamansi Arka* twice after meal. **Results:** In group A highly significant improvement in *Udara Shula* (63%,  $p < 0.01$ ), *Mala Tyaga Asantushti* (50%,  $p < 0.01$ ), *Udara Atopa* (54%,  $p < 0.01$ ). In group B highly significant improvement in *Udara Shula* (83%,  $p < 0.01$ ), *Mala Tyaga Asantushti* (50%,  $p < 0.01$ ), *Kapha Nissarana* (36%,  $p < 0.01$ ), *Udara Atopa* (49%,  $p < 0.01$ ). **Conclusion:** Both the groups showed good results, but group B showed better results in comparison to group A.

**KEYWORDS:** Irritable bowel syndrome, *Vatika Grahani*, *Dhanyadi Yoga*, *Jatamansi Arka*.

## INTRODUCTION

Irritable bowel syndrome (IBS) is one of the most commonly encountered chronic gastrointestinal disorder. Using Manning, Rome I, Rome II, or Rome III criteria, a global prevalence for IBS of 11.2% was reported. The highest prevalence was observed among educated and more affluent people. Across Asia, IBS is more prevalent in younger age groups, but, unlike in Western studies. Prevalence of IBS varies from 4.2%-7.5%, 7.7%-12.9% and 11%-14% in India.

IBS is a motility disorder of gastrointestinal tract, essentially of functional nature with definite psychosomatic basis. The patients present with a variety of symptoms like pain in abdomen, erratic bowel habits, incomplete sense of evacuation etc. IBS is comorbid with psychological disorders such as anxiety, depression, dysthymia and obsessive. The aetiopathogenesis and the symptoms of IBS suggest the involvement of *Vata Dosha*. So the basis of clinical symptoms of IBS we can correlate it with *Vatika Grahani* in *Ayurveda*. IBS has almost always been incurable and the approach therefore, can only be palliative. Since long, most of them being spasmolytic, bulking and psychotropic agents, often selected in an empirical manner but results are not satisfactory. So there is a need to find out safe, cost effective, long lasting and non-invasive treatment. At this juncture it become essential to explore the efficacy and safety of certain *Ayurveda* drugs in the management of IBS.

## MATERIALS AND METHODS

The study were conducted on 30 clinically diagnosed patients of '*Vatika Grahani*' (Irritable bowel syndrome) selected from OPD & IPD of National Institute of Ayurveda, Jaipur and SSBH.

### Inclusion criteria

- Patients willing to sign the consent form for trial.
- Patients aged between 16 – 70 years were selected.
- Patients having clinical signs and symptoms of *Vatika Grahani* & I.B.S. as per Rome III criteria.

### Exclusion criteria

- Mixed infection with parasites like round worms, hook worms etc.
- Patients with bleeding per Rectum.
- Patients with evidence of malignancy.

- Patients having concomitant illness like HTN, DM-II, Amoebic dysentery, Ulcerative colitis, Malabsorption syndrome, Inflammatory Bowel Diseases & Intestinal tuberculosis, Lactase deficiency diarrhoea.
- Patients suffering from major systemic illness with corticosteroids, antidepressants, anticholinergic, or any other drugs that may have an influence on the outcome of the study.
- Alcoholics and drug abusers.
- Pregnant or lactating women.
- Patients who have completed participation in any other clinical trial during the past six months.

**Study Design:** It was Single center, Interventional, Open label and Randomized clinical trial.

**Administration of drug:** 30 clinically diagnosed and registered patients of ‘*Vatika Grahani*’ were divided randomly into two groups 15 patients were included in each group.

**Group A:** 15 Patients were treated by “*Dhanyadi Yoga*” 2 tab (500 mg each) thrice a day with lukewarm water before meal.

**Group B:** 15 Patients were treated by “*Dhanyadi Yoga*” 2 tab (500 mg each) thrice a day, with lukewarm water before meal and 15 ml “*Jatamansi Arka*” twice after meal.

#### **Selection of trial Drug**

- *Dhanyadi Yoga: Yog Ratnakara Grahanchikitsadhyaya*
- *Jatamansi Arka: AFI-Part 1* second revised English edition.

#### **Duration of Clinical Trial & Follow up Study**

- Duration of clinical trial was 30 days.
- Follow-up of patient was done on 15<sup>th</sup> and 30<sup>th</sup> days of treatment.

#### **CRITERIA FOR ASSESSMENT**

##### **(A) Subjective parameter**

- *Udara Shula* (Abdominal Pain or Discomfort)
- *Mala Tyaga Asantushti* (Constipation or Diarrhoea or Both)
- *Kapha Nissarana* (Presence of mucous in stool)

- *Udara Atopa* (Gas or flatulence)
- IBS Severity Score:
- Hamilton Depression Rating Scale:

### (B) Objective parameters

- Hematological Test: Hb%, TLC, DLC, ESR.
- Biochemical Investigation: Blood sugar (RBS)
- Renal Function Test: Blood urea, Sr. Creatinine
- Liver Function Test: SGOT, SGPT
- Stool Examination (Microscopic) Parasites (Ova/Cyst), Mucous, Vegetative cells, Occult blood.

### Statistical analysis

All the Results calculated by using software **InStat graph pad 3.1**. For Nonparametric Data **Wilcoxon matched-pairs signed ranks test** was used while for Parametric Data & Anthropometric Parameters **Paired 't' Test** was used and results Calculated in each group.

### OBSERVATIONS AND RESULTS

Majority of 36.66% patients belong to age group 21- 30 years, 97% were reported to be male, 77% were Hindus, 70% had belong to urban area. 73% had middle class. 53% were graduated, 70% were married, 33.33% were desk worker, 67% were revealed as vegetarian diet, 63.33% of cases habit of *Adhyashana*, 36.66% patients have disturbed sleep, 73.33% patients having *Mandagni*, 53.33% were of *Vata Kaphaja Prakriti*, 63% patients had *Rajasika Manasa Prakriti*, 60% patients had *Madhyama Sara*, 57% were having *Madhyama Aahara Shakti*, 67%) were having *Madhyama Vyayama Shakti*.

**Table 1: Showing effect of Therapy in Subjective Parameters.**

Variable	Gr.	Mean		Mean Diff.	% Relief	SD±	SE±	p value	S
		BT	AT						
<i>Udara Shula</i>	Gr. A	1.267	0.4667	0.80	63%	0.5606	0.1447	.0010	HS
	Gr. B	1.200	0.200	1.000	83%	0.3780	0.0975	.0001	HS
<i>Mala Tyaga Asantushti</i>	Gr. A	2.400	1.200	1.200	50%	1.014	0.2619	.0010	HS
	Gr. B	2.533	1.267	1.267	50%	0.7037	0.1817	.0002	HS
<i>Kapha Nissarana</i>	Gr. A	1.0	0.4667	0.533	53%	0.6399	0.1652	.0156	S
	Gr. B	1.467	0.9333	.5333	36%	0.1333	0.0078	.0078	HS
<i>Udara Atopa</i>	Gr. A	2.467	1.333	1.333	54%	0.8997	0.2323	.0005	HS
	Gr. B	2.733	1.400	1.333	49%	0.6172	0.1594	.0001	HS
<b>IBS severity score</b>	Gr.A	29.00	16.9	12.06	42%	6.076	1.569	.0001	HS

	Gr. B	31.00	19.20	11.80	38 %	6.304	1.628	.0001	HS
Hamilton D.S.	Gr. A	19.20	13.40	5.80	27%	5.130	1.324	.0002	HS
	Gr. B	19.26	16.20	3.06	16%	2.219	0.5729	.0005	HS

**Table 2: Showing effect of Therapy in Objectives parameters.**

Variable	Gr.	Mean		Mean Diff.	% Relief (±)	SD±	SE±	t value	P value	S
		BT	AT							
Hb% (gm %)	A	14.63	15.34	0.713	4.87	2.04	0.527	1.352	.198	NS
	B	14.26	15.27	1.007	7.06	1.594	0.412	2.445	.0283	S
TLC	A	7526	7053	473	6.28	2993	772.8	0.612	.550	NS
	B	6993	6740	253.33	3.62	1819.7	469.8	0.539	.598	NS
ESR	A	11.2	8.66	2.53	22.58	14.85	3.83	0.660	.519	NS
	B	6.6	8.86	2.26	34.24	10.29	2.65	0.853	.408	NS
RBS	A	88.86	88.66	0.20	0.22	1.57	4.05	0.049	.96	NS
	B	90.20	89.73	0.4667	0.51	22.64	5.84	0.079	.937	NS
SGOT	A	33.73	30.06	3.667	10.87	13.568	3.503	1.047	.313	NS
	B	31.26	30.13	1.13	3.61	15.39	3.97	.285	.779	NS
SGPT	A	31.27	27.80	3.467	11.08	11.30	2.918	1.188	.254	NS
	B	31.20	28.86	2.33	7.46	8.30	2.14	1.08	.294	NS
B.Urea	A	26.26	27.66	1.40	5.33	4.339	1.120	1.25	.231	NS
	B	25.53	25.33	0.20	0.78	7.83	2.02	0.098	.92	NS
S.Cret.	A	0.92	0.926	0.006	0.65	0.212	0.055	0.121	0.90	NS
	B	0.913	0.853	0.06	6.57	0.258	0.066	0.898	0.384	NS

(Hb- Haemoglobin; TLC-Total Leucocytes Count; ESR-Erythrocyte Sedimentation Rate).

## DISCUSSION

**Probable mode of action of Dhanyadi Yoga:** Dhanyadi Yoga containing Dhanyaka, Bala, Bilwa, Shunthi, Shaliparni. Dhanyaka has Kashaya, Tikta, Madhura, Katu Rasa. Due to Katu Rasa it has property of Deepana Guna and Due to Tikta Rasa it has property of Aampachana and Srotoshodana. Madhura Rasa has property of Vatashamaka and Kshaya Rasa has property of Amashoshaka. Bilwa containing Kashaya Tikta Rasa, Laghu Ruksha Guna, Ushana Virya and Katu Vipaka. It is Deepana, Pachana, Graahi, Hridya and Vatakapha Shamana. It works on Vatika Grahani due to Grahi property. According to Acharya Charaka, Bala has property of Sanghrika- Balya- Vataharanama in Agrya Gana. It works on Vatika Grahani due to Sanghrika and Vataharana property. Sunthi is Aampachaka due to Ushana Virya; laghu and Deepana Pachana Guna. It is Vatanulomaka due to Snigdha Guna and Ushana Virya. It has Rochana and Kaphavata Samaka Guna. Due to Ushana Virya, Katu Rasa, Shaliparni is Agni Vardhaka; due to Tikta Rasa and Ushana Virya it is Aampachaka and Srotoshodhaka. So maximum of the drugs present in Dhanyadi Yoga has property of Agni Deepana Vatanulomaka Guna; Amapachana Guna; Srotoshodhaka Guna. Mostly drugs works on Samana Vayu (Due to Deepana Pachana Guna) and Apana Vayu

(Due to *Vatanulomaka* and *Vatanashaka* properties). The contents of *Dhanyadi Yoga* have anti-inflammatory, antidiarrhoeal, antispasmodic, antioxidant, analgesic activity, regulates gut motility, immunomodulatory effect.

#### **Probable mode of action of *Jatamansi Arka***

*Jatamansi* has *Medhya Nidrajanana* property. Due to its *Medhya* and *Nidrajanana* property it's may be work on *Manasika Nidana* and *Mansika* symptoms of *Vatika Grahani*. According to *Acharya Charaka Manasika Hetu (Chinta Shoka Bhaya Krodha etc)* affects the process of digestion. If these prevails for a longer period; it may be further leads to *Vatika Grahani* (IBS). Thus due to property of *Medhya*, *Jatamansi Arka* may breakdown the *Samprapti* of *Vatika Grahani* (IBS).

#### **CONCLUSIONS**

Both groups showed effect in various parameters of *Vatika Grahani*. The available data shows equal efficacy of *Dhanyadi Yoga* (In group A) and *Dhanyadi Yoga* along with *Jatamansi Arka* (In group B) in the management of *Vatika Grahani* (IBS). But percentage wise comparison, group B showed better result in *Udara Shula*. Both group showed equal result on *Mala Tyaga Asantushti*.

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