Journal of Pharmaceutical and Scientific Innovation

www.jpsionline.com (ISSN : 2277 -4572)

Research Article

A CLINICAL STUDY TO EVALUATE THE EFFICACY OF MASURAGHRITA MATRABASTI AND LAGHU GANGADHARA CHURNA IN THE MANAGEMENT OF IBS WITH SPECIAL REFERENCE TO PRAVAHIKA

Vinoda V.K. *[1], Mythrey. R. C. [2]

[1]PG Scholar, Dept. of Kayachikitsa, Govt. Ayurvedic Medical College, New Sayyajirao road, Vishweshwaryya circle Mysuru, Karnataka, India

[2]Professor, Dept. of PG studies in Kayachikitsa, Govt. Ayurvedic Medical College, New Sayyajirao road, Vishweshwaryya circle, Mysuru, Karnataka, India

*Corresponding Author Email: vkvinu05@gmail.com

DOI: 10.7897/2277-4572.06458

Received on: 22/07/17 Revised on: 03/08/17 Accepted on: 07/08/17

ABSTRACT

Irritable bowel syndrome (IBS) is a functional GI disorder characterized by abdominal pain and altered bowel habits in the absence of a specific and unique organic pathology, rarely associated with microscopic inflammation. Studies have revealed that IBS is a disorder that affects all ages, although most patients have their first symptom before the age of 45. Women are diagnosed with IBS 2 to 3 times as often as men and make up to 80% of the population with severe IBS. Considering this, the study was undertaken to evaluate the efficacy of matra basti, followed by Laghu gangadhara churna as shamanoushadhi in the Management of Irritable bowel syndrome vis-à-vis Pravahika. It was an observational clinical study with pre and post-test design, consisting of Masura ghrita Matra Basti and Laghu gangadhara churna as shamanoushadhi. The symptoms like, Tenesmus (kunthanasheela mala pravritti), constipation (Baddha mala pravritti), abdominal pain/discomfort (Udarashoola), mucus in stool, gas/ flatulence, and increased frequency of defecation on grading were taken as parameters of assessment. The study consisted of 20 subjects and 2 assessments i.e on 0th day and on 31st day. Statistical results on parameters showed highly significant results on symptoms of abdominal pain/discomfort, tenesmus and flatulence with p value 0.000, and statistically significant result on symptom of mucus in stool, constipation, and increased frequency of defecation with p value 0.012, 0.009, and 0.005 respectively.

Keywords: IBS, Pravahika, masuraghrita, matrabasti, laghu gangadhara churna.

INTRODUCTION

Irritable bowel syndrome is a functional bowel disorder characterized by abdominal pain or discomfort and altered bowel habits in the absence of detectable structural abnormalities.

Throughout the world about 10-20% of adult and adolescents have symptoms consistent with IBS and most studies show a female predominance.[1] In south Asia and in India, most IBS reporting patients are young men.[2]

Almost all the symptoms of IBS are similar to that of Pravahika. Pravahika is a disease related to pakvashaya characterized by pravahana during defecation associated with shoola, daha and vibaddhavatavarchas. The pureesha will be picchila, saphena, sakapha and excreted in little quantity with frequent episodes.[3, 4]

For Pakvashaya gata vikaras and vataja disorders, Bastichikitsa is considered to be one of the best methods of treatment. As IBS is a motility disorder related to colon (pakwashaya) which is chronic in nature and the main dosha involved in the pathogenesis of pravahika is vatadosha, this study was undertaken to evaluate the efficacy of Masura ghrita matra basti followed by Laghu gangadhara churna as shamanoushadhi in the Management of Irritable bowel syndrome vis-à-vis Pravahika.

Efficacy was assessed on the relief of symptoms like, Tenesmus (kunthanasheela mala pravritti), constipation (Baddha mala pravritti), abdominal pain/discomfort (Udarashoola), mucus in stool, Gas/ Flatulence, increased frequency of defecation by giving different grades for its severity. Observations were recorded before intervention (0 day) and after intervention (31st day). The results were tabulated and analyzed statistically.

A total number of 20 subjects completed the intervention. Subjective improvement in IBS patients with statistical analysis of results has been explained in clinical study. All the observations were recorded in a specially designed proforma.

Statistical results on parameters showed highly significant results on symptoms of abdominal pain/discomfort, tenesmus, and flatulence with p value 0.000, and statistically significant result on symptom of constipation, mucus in stool and increased frequency of defecation with p value 0.009, 0.012 and 0.005 respectively.

OBJECTIVES OF THE STUDY

To evaluate the combined effect of Masura ghrita Matrabasti and Laghu gangadhara churna as shamanoushadhi in IBS vis-à-vis Pravahika.

MATERIALS & METHODS

Source of data

Subjects were selected from the O.P.D. and I.P.D. of Government Ayurveda Medical College & Hospital, Mysuru

and from the Special camp conducted for the study at Government Ayurveda Medical College &Hospital, Mysuru for 1 month.
The consent to this study was obtained from our institutional ethical committee. Ethical clearance number is KC-2(EC)/GAMC-2014-15.

Sample size and Sampling method

A total of 22 subjects irrespective of gender, socio-economic status and religion, having the signs and symptoms of Irritable Bowel Syndrome vis-à-vis Pravahika fulfilling the inclusion criteria were registered for the study. The selected subject's detailed profile was prepared as per the detailed proforma designed for the same purpose, which incorporates relevant data like symptomatology, physical signs, laboratory investigation reports as well as assessment criteria after taking informed Consent of the subject. Out of 22 subjects registered, there were 2 dropouts at various levels of the study, and the study was completed with 20 subjects. Among 2 dropouts 1 subject discontinued after basti karma as there was no relief and 1 subject discontinued during basti karma because of unknown reason.

Research design

The present study was an observational clinical trial with Pre and Post-test design.

Intervention

The interventions were as follows.
1. Matrabasti with Masura ghrita[5] for first 8 consecutive days.
2. Laghu gangadhara churna[6] 12gms in two divided doses of 6gms in the morning and 6gms in the night after food with takra as anupana for 22 days from 9th day of intervention.

Period of intervention- 30 days

Inclusion Criteria

Patients with symptoms of IBS vis-à-vis pravahika
- Abdominal pain associated with altered bowel habit that consists of constipation, diarrhoea or both. (Sashoola mala pravritti /Vibaddha mala pravritti).
- Mucus in stool (Sakapha mala pravritti).
- Altered stool passage (straining, urgency or feeling of incomplete evacuation / kunthana sheela mala pravritti/ Krute api akruta sangya).
- Cases with or without dyspepsia, nausea, vomiting, flatulence were taken for the study.
- Patients between the age group of 16-60yrs were selected.
- Patients of all gender, religion, occupation were selected for the study.
- Both fresh and treated cases were taken for the study.

Exclusion Criteria

- Patients suffering from any other systemic disorders which interfere with the course of the intervention were excluded.
- Patients with complications of IBS like haemorrhoids, depression, and weight loss were excluded.
- Patients with upadrava of Pravahika like gudabramsha, gudapaka, gudashotha, gudena rakta srava were excluded.
- Pregnant and lactating women were excluded.

Diagnostic Criteria
Rome III criteria for functional bowel disorders.
The diagnosis was made based on the Rome III criteria. Recurrent abdominal pain or discomfort lasting at least 3 days a month in the last 3 months associated with any two below mentioned features
- Relieved with defecation
- Onset associated with a change in frequency of stool
- Associated with a change in form (appearance) of stool

Symptoms that support the diagnosis of IBS
- Altered stool frequency (may be defined as greater than 3 bowel movement/ day and less than 3 bowel movements/ week).
- Altered stool form (lumpy/hard or loose watery stool)
- Altered stool passage (straining, urgency or feeling of incomplete evacuation- kunthanasheela, Sashooloa mala pravrutti, Krute api akruta sangya).
- Passage of mucus –Sakapha/saphena mala pravritti.
- Bloating or feeling of abdominal distension.

ASSESSMENT

Parameters of assessment
Assessment was done based on clinical grading of signs and symptoms of Irritable Bowel Syndrome vis-à-vis Pravahika. These data were collected on 0th day (Before), and on 31st day (After completion) of intervention.

Assessment schedule
In this Study, total two assessments of the subjects were done. Before starting the Intervention i.e. pre-test assessment was done on 0th day and post-test assessment i.e. after the completion of intervention was done on 31st day.

Statistical methods
The results were analysed statistically by using Cross tabulation (Cremer's V test and Delphi test) analysis using Service product for statistical solution (SPSS) for windows software.

Investigations

Haematological investigations namely Haemoglobin %, TC, DC, ESR, Random blood sugar, and Urine examinations namely Sugar, Albumin & Microscopic, Stool for Ova, Cyst and Microscopic were carried out to rule out other systemic diseases in all the cases.

OBSERVATIONS AND RESULTS
Pre-test observation

Out of 20 patients, in pre- test assessment 3(15.0%) subjects had Continuous pain not relieved by passage of flatus & stool, 17(85.0%) subjects had intermittent lower abdominal pain relieved by passage of flatus. 1(5.0%) subject had No tenesmus, 0(0.0%) subjects had rarely or occasional tenesmus, 13(65.0%) subjects had tenesmus 1-2 times/day and in 6(30.0%) subjects tenesmus was frequently present. 10(50.0%) subjects had No constipation, 1(5.0%) subject had alternative day constipation and in 6(30.0%)subjects constipation was once in 2 days and in 3(15.0%) subjects constipation was once in 3 days. 7(35.0%) subjects had Passage of large amount of mucus in stool, 13(65.0%) subjects had Passage of mucus with frequent stool. 13(65.0%) subjects had Rumbling / Gurgling sound in abdomen, 7(35.0%) subjects had Frequent abdominal distension with increased Flatulence & belching. In 5(25.0%) subjects frequency of defecation was > 6 times a day, in 8(40.0%) subjects

frequency of defecation was 4-6 times a day, and in 7(35.0%) subjects frequency of defecation was 2-4 times day.

Post- test assessment

In Post- test assessment, 2(10.0%) subjects had Occasional abdominal pain and 18(90.0%) subjects were completely relieved from abdominal pain.15(75.0%) subjects had no tenesmus, 5(25.0%) subjects had occasional tenesmus. 18(90.0%) subjects had no constipation, 2(10.0%) subjects had alternative day constipation. 13(65.0%) subjects had no visible mucus in stool, 4(20.0%) subjects had visible mucus in stool and 3(15.0%) subjects had Passage of mucus with frequent stool.11(55.0%) subjects had No abdominal distension, 8(40.0%) subjects had Occasional abdominal distension, 1 (5.0%) subject had frequent abdominal distension with increased Flatulence & belching. In 11(55.0%) subjects frequency of defecation was once daily, In 9(45.0%) subjects frequency of defecation was twice daily.

Table 1: Abdominal Pain/Discomfort

Day	AP/discomfort				Total
	No abdominal pain	Occasional abdominal pain	Intermittent lower abdominal pain, relived by passage of flatus	Continuous pain not relieved by passage of flatus & stool	
0th day	0(0.0%)	0(0.0%)	17(85.0%)	3(15.0%)	20(100%)
31st day	18(90.0%)	2(10.0%)	0(0.0%)	0(0.0%)	20(100%)

The result on abdominal pain/discomfort shown statistically highly significant result with p value 0.000

Table 2: Tenesmus

Day	Tenesmus				Total
	No tenesmus	Occasional tenesmus	Tenesmus 1-2 times/day	Frequent tenesmus	
0th day	1(5.0%)	0(0.0%)	13(65.0%)	6(30.0%)	20(100%)
31st day	15(75.0%)	5(25.0%)	0(0.0%)	0(0.0%)	20(100%)

The result on Tenesmus shown statistically highly significant result with p value 0.000

Table 3: Constipation

Day	Constipation				Total
	No Constipation	Alternative day constipation	Once in 2 days	Once in 3 days	
0th day	10(50.0%)	1(5.0%)	6(30.0%)	3(15.0%)	20(100%)
31st day	18(90.0%)	2(10.0%)	0(0.0%)	0(0.0%)	20(100%)

The result on Constipation shown statistically highly significant result with p value 0.009

Table 4: Mucus in stool

Day	Mucus in stool				Total
	No visible mucus in stool	visible mucus in stool	Passage of mucus with frequent stool	Passage of large amount of mucus in stool	
0th day	0(0.0%)	0(0.0%)	13(65.0%)	7(35.0%)	20(100%)
31st day	13(65.0%)	4(20.0%)	3(15.0%)	0(15.0%)	20(100%)

The result on Mucus in stool shown statistically highly significant result with p value 0.012

Table 5: Flatulence

Day	Flatulence				Total
	No abdominal distension	Occasional abdominal distension	Frequent abdominal distension with increased flatulence and belching	Rumbling / Gurgling sound in abdomen	
0th day	0(0.0%)	0(0.0%)	7(35.0%)	13(65.0%)	20(100%)
31st day	11(55.0%)	8(40.0%)	1(5.0%)	0(0.0%)	20(100%)

The result on Flatulence shown statistically highly significant result with p value 0.000

Table 6: Increased frequency of defecation

Day	Increased frequency of defecation					Total
	Normal once daily	twice daily	2-4 times day	4-6 times a day	> 6 times a day,	
0th day	0(0.0%)	0(0.0%)	7(35.0%)	8(40.0%)	5(25.0%)	20(100%)
31st day	11(55.0%)	9(45.0%)	(0.0%)	0(0.0%)	0(0.0%)	20(100%)

The result on increased frequency of defecation shown statistically highly significant result with p value 0.005

DISCUSSION

The ingredients of masura ghrita being Masura and Bilva, having madhura, tikta, kashaya rasa, grahi and deepana properties, helps in the management of Pravahika. Ghrita being agnideepaka, vatanulomaka, vata pitta shamaka helps in correcting the pathology. The fiber present in lentil (masura) helps in boosting metabolism. Fiber functions as "bulking agent" in the digestive system. Lentil alleviates constipation and provides satiation. Fibre in lentils provide regularity to digestive process and prevents irritable bowel syndrome.[7]All the ingredients of laghu gangadhara churna having kashaya rasa and sheetaveerya, acts as grahi and stambhana. Mocharasa being one of the ingredient acts as analgesic, antioxidant, anti-inflammatory.[8]Bilva acts as antioxidant, and antibacterial, antiviral, anti-diarrheal, hepatoprotective.[9] Thus helps in the management of Pravahika.

CONCLUSION

Pravahika is a vatakapha pradhana vyadhi characterised by pravahana, sakapha mala pravritti, alpalpa mala pravritti and muhurmuhur mala pravritti which correlates with the symptoms of IBS. It is clear from the observation made on 20 subjects that, maximum number of subjects had history of irregular food habits, which can be considered under ahitashana. The overall assessment has shown that; Complete relief was found in 3(15.0%) subjects, Marked improvement was found in 5(25.0%) subjects, Moderate improvement was found in 7(35.0%) subjects, Mild improvement was found in 3(15.05) subjects and No improvement was found in 2(10.0%) subjects.From the results obtained it can be concluded that both the interventions used in the study are effective in the management of IBS vis-à-vis Pravahika.

ACKNOWLEDGMENT

I thank all the participants for giving me an opportunity to successfully complete this study. I also thank my eminent guide for guiding me throughout the study.

REFERENCES

1. S. Fauci, Dennis L. Kasper, et al., Harrison's Principles of Internal medicine, 18th edition, volume II, McGraw-Hill publications, 2012, p2496.
2. Yash pal munjal, API Text book of medicine, edited by Surendra. k. sharma, A. K. Agarwal, R. K. Singhal, Pritam Gupta, Shyamsundar, Sandhya. A. Kamath, Subhashvarma, Milind. Y. Nadkar. 9th edition, vol 1, 2012, p820-822
3. Sushruta,SushrutaSamhita, sanskrit Commentary by sri Dalhanacharya edited by yadavajitrikamji acharya , Chaukhamba Prakashana, Varanasi, Uttaratantra 40th chapter/138, 2014, p706
4. Vridda Vagbhata, Ashtangasangraha, edited by punyashlokalal chandshastri, Chaukhamba Prakashana, Varanasi chikitsasthana 11th chapter, 1989, p787-789
5. Sharangdhara, sharangdhara samhita, Gudarthadipika Commentary by adhamalla, edited by parashuram shastri vidyasagar, Chaukamba Surbharati Prakashan, Varanasi, madhyamakhanda, 9th chapter/25-27, 2000, p216
6. Sharangdhara, sharangdhara samhita, Gudarthadipika Commentary by adhamalla, edited by parashuram shastri vidyasagar, Chaukamba Surbharati Prakashan, Varanasi, madhyamakhanda, 6th chapter/47-49, 2000, p184
7. http://www.medindia.net/dietandnutrition/health-benefits-of-lentils.htm/feb27/2017
8. http://citeweb.info/20141639708>SHALMALI(BOMBAX MALABARICUM LINN.):AMULTI-PURPOSE BOON OF AYURVEDA(2014)/march/2017
9. http://www.sciencedirect.com/science/article/pii/S0963996911000950/march/2017

How to cite this article:
Vinoda V.K. and Mythrey. R.C. A clinical study to evaluate the efficacy of Masuraghrita matrabasti and Laghu gangadhara churna in the management of IBS with special reference to Pravahika. J Pharm Sci Innov. 2017; 6(4): 75-78.
http://dx.doi.org/10.7897/2277-4572.06458

Source of support: Nil, Conflict of interest: None Declared