INTERNATIONAL AYURVEDIC MEDICAL JOURNAL



International Ayurvedic Medical Journal (October-November 2016) 1(1) 53-60

CLINICAL MANAGEMENT OF IRRITABLE BOWEL SYNDROME (IBS) THROUGH TAKRA VASTI AND SANGRAHI VASTI

Padma A B¹ Prashanth A S² Ragavendran³

Published online: 16 November, 2016

© International Ayurvedic Medical Journal, India- 2016

ABSTRACT

Irritable Bowel Syndrome (IBS) is a Functional disorder, which is also considered as a psychosomatic disease in contemporary medicine. It is mainly diagnosed by its symptoms as there are no proper diagnostic markers for diagnosis. The etiology and pathophysiology is not clear, but there are some researches which prove the role of abnormality of intestines and impaired communication of Enteric Nervous System which plays main role in manifestation of the disease. The treatment in contemporary medicine is mainly symptomatic, and in some cases anti-depressant medications gives better results. In Ayurveda IBS cannot be compared with any single disease. But many diseases described in Ayurveda like Grahani, Atisara and Pravahika have some similarities with the disease. On detailed study it can be found that all the IBS patients develop nature of 'Grahanidosha' at some stage of their illness. The treatment principle in Ayurveda consists of Deepana, Pachana measures initially, followed by Grahi and Stambhana measures by means of Vasti Karma, Shamanoushadhi, Pathyapathya etc. Satvavajaya also plays an important role in the management of this disease, as there is involvement of psychosomatic components in disease manifestation. 30 subjects were studied in this study under group A and B, each consisting 15 subjects. This study was undertaken with the objective to assess the efficacy of Takravasti (Group A), Sangrahi Vasti (Group B) in Kala Vasti schedule along with Kapitthashtaka Choorna (Both Group) internally as Shamanoushadhi with Takra Anupana. The therapies provided statistically highly significant results in all the Assessment Parameters in both the groups. In a nutshell10 subjects got Marked Relief, 17subjectsgot Moderate Relief, and 2 subjects got Mild Relief, whereas 1 subject had No Relief. So it can be concluded that, both Takra Vasti and Sangrahi Vasti along with Kapitthashtaka Choorna internally as Shamanoushadhi has a significant role in the management of Irritable Bowel Syndrome. So it is proving the Alternate/Research Hypothesis which states "The treatment design is effective in the management of Irritable Bowel Syndrome".

Keywords: Irritable Bowel Syndrome, *Takra Vasti*, *Sangrahi Vasti*, *Kapitthashtaka Choorna*.

INTRODUCTION

Padma A B¹ Prashanth A S² Ragavendran³

¹MD Scholar, ²Professor & Head,

PG Department of *Kayachikitsa*, Ayurveda Mahavidyalaya, Hubli, Karnataka, India

³Lecturer, Ayurveda College Coimbatore, Mathiyalagan Nagar, Sulur, Tamil Nadu, India

Email: drpadmashree9@gmail.com

Ayurveda the 'Science of life' gives main importance not only to the preventive aspect of the health, but also to the curative aspect of the diseases¹. In this fast developing technical era, the change in the life style, food habits, stress, tension, and suppression of urges due to busy life-

style, leads to the development of various diseases. People initially neglect their problem and do not seek remedy for the same till their routine gets disturbed.

Today stress has become the menace hampering quality of life of people at different stages. According to several major studies, stress induced dysfunctions lead to an annual \$ 17 billion in decreased productivity and \$ 60 billion in physical illness. This is a growing problem.

Today, man is subjected to major events of stress in modern fast way of life and the balance is frequently disturbed. The system is constantly kept under sympathetic stimulations without enough time for the parasympathetic to do its job. This repeated sympathetic stimulation lead to intermittent upsurges of heart rate, blood pressure, poor digestion, elevated blood glucose etc. The typical "Flight or Fight" syndrome tends to speed up our cardiovascular system and slow down our digestive tract.

In the incessant quest for material comforts man has disregarded the codes of healthy living for the bodily health as well as healthy mind also. Indian medicine has already considered this problem in depth in the light of its comprehensive psychosomatic approach towards the entire problem of health and medicine.

Irritable bowel syndrome (IBS) is one such digestive functional disorder that many people have, but seldom speak about. It is estimated that IBS affects upto15% of the world population with its symptoms of chronic abdominal pain and major disturbance of bowel functioning². The world wide prevalence of the IBS is in between 40-70% of all cases attending gastroenterology clinics or hospitals. The peak prevalence of IBS is between 20 and 40 years of age, and there is a significant female predominance³. IBS can entail bouts of urgent diarrhea, episodes of chronic constipation, or a pattern of alternation between the two⁴. The intermittent nature of symptoms without evidence of physical deterioration and the relation to stress suggest the diagnosis.

IBS is considered a functional disorder, where no visible disease processor tissue damage is seen. A person suffering from IBS knows how

intense the disorder can be and how it can cause significant disruption in the ability to attend to the tasks of daily life. IBS is considered as psychosomatic disorder in contemporary medicine.

Though it is not possible to find an exact correlation of IBS in Ayurveda, some of the disorders definitely have striking similarity with IBS such as Vataja⁵& Kaphaja Atisara⁶, Sangraha Grahani⁷, Pravahika⁸, Pakvashayagata Vata⁹. There are a good number of signs and symptoms in Vataja Atisara which are characteristic of IBS: Patient is constipated, stool passed in little quantity with sound, pain and froth, cutting pain in anus or increased frequency of watery stool with decreased quantity and associated mucous are also observed in Atisara. In Kaphaja Atisara which clearly indicates sense of incomplete evacuation, is typical of IBS. Thus there is quite a relation between Atisara and IBS. The basic difference lies in the fact that Atisara is an acute onset type of disease, IBS is of chronic nature. In Pravahika, tenasmus during defecation, increased frequency of small amount of feaces with mucus are partial resemble clinical features of IBS, but it is still far away from the wide spectrum of IBS. The signs & symptoms of Sangraha Grahani are more similar to IBS.

Sangraha Grahani is also chronic in nature & difficult to diagnose & cure. Sangraha Grahani is characterized by the aggravation of all the symptoms during the day time & subsided during night which is almost similar to IBS. However, there is little difference between the two disorders in relation to the seat of the disease because; in case of Sangraha Grahani the seat of disease is Grahani (small intestine) while IBS itself is a disorder of gastrointestinal tract. Pakvashayagata Vata is ananatmaja Vyadhi, main seat is Pakvashaya (large intestine), and vitiated Vata is located in Pakvashaya producing gargling sound in intestine, colic, difficulty in passing urine and stool, hardness in bowel. It has quite similarity but as said above IBS is a disorder of GI tract having wide spectrum of symptoms.

According to *Ayurveda*, IBS can be considered as a disorder where is a derangement of *vata* in *pakvashaya* especially of *apanavayu*

leading to symptoms of pain in abdomen and altered bowel habits. In the pathophysiology of IBS, it's observed that along with *ApanaVata*, the other *dosha* like *Prana Vata*, *Samana Vata*, *Pachaka Pitta* and *Kledaka Kapha* also play an important role in manifestation of this disease. *Mandagni* leads to *Dosha Prakopa*. The emotions like anger, fear and grief etc. have their own effects on the *Agni*. *Dusti* of *Mana* or *Agni* leads to Indigestion¹⁰, *Shoka*, *Bhaya* etc. cause *Vata Prakopa*¹¹. Thus, disturbance in mental health directly affect the gastrointestinal tract.

In contemporary medicine irritable bowel syndrome (IBS) treatment is generally not a 'one size fits all plan'. A multi-faceted approach is often called for, including having a good working relationship with the physician, the possible use of prescription medicine (for alternative type diarrhea and constipation) and over the counter (OTC) remedies, nutritional and life style changes, and in some cases, even psychotherapy is offered as it is considered as psychosomatic disorder¹². In modern medicine there is no one drug care for IBS, but a variety of medications are available that address each specific symptom. Patients with symptoms of IBS sometime benefit from several months of therapy with amitriptyline.

The treatment principles of *Ayurveda* give prime importance to *agni* as *Ayurvedic* concepts evolve around "*Rogahsarve Apimandeagnau*"¹³. Foremost importance has to be given for *Anna Pachana* and *Agni Deepana*. *Ayurveda* al-

so believes mind matter are inter connected at a deep level. So in the present study, *Satvavajaya* (by means of counseling) was also given main role.

By considering all the above points looking into the suffering of the patients with Irritable Bowel Syndrome and also to experiment the effect of *Ayurvedic* treatment modalities in this regard, it was planned to undertake this disease for the present study.

In both the group two months follow up was done.

OBJECTIVESOFTHE STUDY:

- To assess the efficacy of 'Takra vasti' along with internally Kapitthashtaka churna in the management of Irritable Bowel Syndrome
- To assess the efficacy of 'Sangrahi vasti' along with internally Kapitthashtaka churna in the management of irritable bowel syndrome
- To compare the efficacy of 'Takra vasti' and 'Sangrahi vasti' in the management of Irritable Bowel Syndrome
- ➤ To evolve a comprehensive remedy for Irritable Bowel Syndrome.

MATERIALSAND METHODS

The present study entitled "Clinical Management of Irritable Bowel Syndrome (IBS) through *Takra Vasti* and *Sangrahi Vasti*" was carried out with,

Interventions

Mode of	Group– A	Group– B
Administration	Takra Vasti ¹⁴	Sangrahi Vasti ¹⁵
Amapachana	Shunthyadi Choorna	Sunthyadi Choorna
Dosage	500 mg twice Daily before food	500mg twice daily before food
Anupana	Ushnodaka	Ushnodaka
Duration	Till Nirama Lakshana are seen	Till Nirama Lakshana are seen
Vasti	TakraVasti	Sangrahi Vasti
Shedule	Kala Vasti	Kala Vasti
Durations	16 days	16 days
Shamana	Kapitthashtaka Choorna	Kapitthashtaka Choorna
Dosage	5mg twice daily before food	5gm Twice daily before food
Anupana	Takra	Takra

Duration	32days	32 days
TOTAL DURATION	: 48 days	
Follow Up	: 2 months	

The drugs used in this study are-

- 1. Sunthyadi Choorna¹⁶
- 2. Amabashtadi Gana Kalka¹⁷
- 3. Priyangwadi Gana Kashaya¹⁸
- 4. Shatpala Ghrita 19
- 5. Kapitthashtaka Choona²⁰
- 6. Saindhava Lavana

- 7. Madhu
- 8. Takra

Study Design: A comparative clinical Trial Study **Sample Size:** Total 30 subjects were selected incidentally and randomly placed into two groups consisting of 15 subjects in each group.

VASTHI SAMYOJANAVIDHI

GROUPA – TakraVas	ti	GROUPB– Sangrahi vasti					
Madhu	2 Pala -100ml	Madhu	2 Pala-100ml				
Saindhava lavana	1 Karsha-10gm	Saindhava lavana	1 Karsha-				
Shatpala Ghrita	2Pala -100ml	Shatpala Ghrita	2 Pala-100ml				
Ambashtadi Gana kalka	1Karsha -10gm	AmbashtadiGana kalka	1 Karsha-				
Priyangwadi Gana Kashaya	6Pala -300ml	Priyangwadi Gana Kashaya	12 Pala-600ml				
Takra	6Pala -300ml						

Inclusion Criteria:

- 1. Subjects presenting with clinical features of 'Irritable Bowel syndrome'
- 2. Subjects of either sex between the age group of 20-60 years
- 3. Subjects who are fit for Vasti procedure

Exclusion criteria:

- 1. Subjects presenting with inflammatory bowel disorders which includes Chron's disease and Ulcerative colitis; acute conditions like Cholera, Gastroenteritis.
- 2. Subjects with uncontrolled metabolic disorders and other systematic disorders.
- 3. Pregnancy

DIAGNOSTIC CRITERIA: Internationally accepted 'Rome II criteria' was used for the diagnosis of 'Irritable Bowel Syndrome'.

Laboratory Investigation: To exclude other disorders investigations like Hb %, TC, DC, ESR,

RBS, Stool-Microscopic study, Proctoscopy, Sigmoidoscopy, was done whenever necessary.

PARAMETERS OF THESTUDY:

Parameters of assessment were taken from modified Gastrointestinal Symptom Rating Scale (GSRS) ¹⁶⁰ used for assessing Irritable Bowel Syndrome (IBS) as follows;

Assessment Parameters:

- ✓ Abdominal Pain (*Udara Shoola*)
- ✓ Abdominal distension (*Adhmana*)
- ✓ Increased Frequency of Stool (Muhur Muhur Mala Pravrutti)
- ✓ Loose Stools (*Drava Mala*)
- ✓ Feeling of Incomplete Evacuation (*Krute Api Akruta Samgyah*)
- ✓ Urgency in Defection
- ✓ Mucous in Stool
- ✓ Passing Stool after food

RESULTS:

Comparative Efficacy of Therapies on Assessment Parameters between Group A and Group B using Unpaired Student't' Test:

Assessment	Gr	oup A		G	roup B		Unpaire oup A v	Remarks			
Parameters	Mean	S.D	S.E	Mean	S.D	S.E	S.D	S.E	't'	P	

Abdominal Pain	0.73	0.46	0.12	0.80	0.41	0.11	0.44	0.16	0.42	>0.05	S.N.S
Abdominal Distension	0.47	0.52	0.13	0.40	0.51	0.13	0.51	0.19	0.36	>0.05	S.N.S
Increased frequency of Stool	1.0	0.53	0.14	0.93	0.26	0.07	0.42	0.15	0.43	>0.05	S.N.S
Loose Stools	0.93	0.46	0.12	0.87	0.35	0.09	0.41	0.15	0.45	>0.05	S.N.S
Urgency in defecation	0.67	0.62	0.16	0.47	0.52	0.13	0.57	0.21	0.96	>0.05	S.N.S
Feeling of incomplete defecation	0.73	0.46	0.12	0.60	0.51	0.13	0.48	0.18	0.76	>0.05	S.N.S
Mucous in Stool	0.47	0.52	0.13	0.40	0.521	0.13	0.51	0.19	0.36	>0.05	S.N.S
Passing stool after food	0.47	0.52	0.13	0.40	0.51	0.13	0.51	0.19	0.36	>0.05	S.N.S

Effect of Therapy on Subjective Parameters in Both the Groups

Subjective	(Group A		(Group B	Overall relief of	
Parameters	B.T	A.T	%	В.Т	A.T	%	symptoms(%)
Abdominal Pain	1.13	0.4	64.71	1.00	0.27	73.33	69.02
Abdominal Distension	0.73	0.27	63.64	0.60	0.20	66.67	65.15
Increased frequency of Stool	1.87	0.876	53.57	2.00	1.07	46.67	50.12
Loose Stools	1.27	0.33	73.68	1.20	0.33	72.22	72.95
Urgency in defecation	0.87	0.20	76.92	0.67	0.20	70.00	73.46
Feeling of incomplete defecation	1.00	0.27	73.33	0.80	0.20	75.00	74.17
Mucous in Stool	0.73	0.27	63.64	0.53	0.13	75.00	69.32
Passing stool after food	0.67	0.20	70.00	0.47	0.007	85.70	77.85

DISCUSSION

Irritable Bowel Syndrome (IBS) is a condition characterized by a mixture of symptoms which are believed to be due to a disorder of intestinal motor function. It is the commonest condition seen by gastroenterologists. But irritable Bowel Syndrome is often the outcome of a complex interaction between physiological and physical factors. Since the cause is not known, it is not possible to reliably prevent the condition. There

is no single blood test, X-ray or scan which will diagnose Irritable Bowel Syndrome.

Irritable Bowel Syndrome is not a life—threatening condition. The treatment normally helps to reduce the symptoms.

Mode of action of the Materials used: *AMAPACHANA: Sunthyadi Choorna:*

This Yoga is containing Sunthi and Saindhava Lavana, Sunthi is having the Ushna

Veerya, Ruksha, Theekshna Guna, Vata Kaphahara and Pachana. Saindhava Lavana possesses the qualities of Laghu Guna, Anushna Veerya, Tridoshahara, Deepana.

Agni Dushti is considered as the main causative factor of all the diseases, especially the diseases of gastrointestinal tract. Agni Dushti leads to Ama Dosha Here the drug selected for the Ama Pachana is mentioned in the context of Grahani Chikitsa for the purpose of Agni Deepana and Ama Pachana. Sunthi is also having the qualities of Grahi Hence the Sunthyadi Choorna regulates the function of Samana Vata, Apana Vata and Kledaka Kapha. These drugs which are digestives and carminatives stimulate enzymatic secretions, HCL secretions, pancreatic and bile secretions, there by proper digestion as well as assimilation will occur.

TAKRA VASTI

TakraVasti consists of Madhu, SaindhavaLavana, Shatpala Ghrita, Ambashtadi Gana Kalka, Priyangwadi Ganakashaya and Takra. Acharya Dalhana has explained to add Takra as Avapa Dravya in Sangrahi Vasti mentioned by Acharya Sushruta, as Takra has got more Grahi and Stambhana properties. The individual ingredient of the combination of Vasti may have its own action. But when all these drugs are mixed together the effect will be more an enhanced. The overall effect of this Vasti is said to be having Sangraha Guna. It mainly acts on Apana, Prana and Samana Vata; Pachaka Pitta and Kledaka Kapha.

SANGRAHI VASTI

Sagrahi Vasti consists of Madhu, Saindhava Lavana, Shatphala Ghrita, Ambashtadi Gana Kalka and Priyangwadi Gana Kashaya. The individual ingredient of combination of Vasti may have its own action. But when all these drugs mixed together the effect will be more and enhanced. Here the difference with Takra Vasti is that, it does not contain Takra as Avapa Dravya, where as contains more proportion of Priyangwadi Gana as the finally prepared Vasti has got more picchila Guna. It also acts on Apana, Prana and Samana Vata, Pachakapitta and Kledaka Kapha mainly.

CONTENTSOF*TAKRAVASTI* AND *SAN-GRAHIVASTI*:

Madhu: Madhu is having the qualities like *Rukha, Laghu Guna, Grahi* and *Ropana* which will be useful in the diseases like IBS. It is best among the vehicles because of its *Yogavahi Guna*. It contains sucrose and lot of enzymes. The *yogavahi* nature which will be helpful in spreading the *Veerya of Vasti Dravya* very fast.

Saindava lavana:

In case of both *vasti*, *saindhava* is mainly expected to help in fast spreading (by *Sukshma*, *Vyavayi Guna*) and absorption of *vasti* (*ByUshna*, *Teekshna guna*).

By its penetrating nature it helps to pass the drug molecules in the systematic circulation through intestinal mucosa. It is also helpful in easy *Pratyagamana* of *vastidravya* without causing any untoward effect.

Due to these properties it pacifies the *Kapha dosha*, causing *Kapha vilayana* and *Kapha chedana* properties. So it will be helpful in doing *Kledaka kapha chedana*.

Shatphala ghrita: This ghrita is used because it is best sneha in agnidusti as well as in Grahanidosha. In case of IBS, there is certainly Agnidusti leading to formation of Apakwa Mala Visarjana, where we need to improve the Sukshmagni, so that it helps in proper Pachana, Vivechana and Munchana. All the drugs are having Agnideepana properties, whereas Yavakshara helps in faster action of Vasti Dravya in the target cells due to its Vyavayi and Vikashiguna. Ksheera in the combination nullifies the atyushna nature of the medicine and does Bhrumhana as well as Balva. This combination will be helpful in regulating Samanavata Pachaka Pitta and Apana Vata. As said earlier Ghrita as such is Agni Deepana, so it has got good efficacy in IBS.

Ambastadi Gana Kalka: Ambastadi Gana is used as Kalkadravya in preparation of both the vasti. It is having some amount of Deepana, Pachana, and Krimighna properties, whereas it definitely does Sangrahikarma. It also acts on Apanavata and Kledaka Kapha mainly. As explained in Phalashruti it is also good in case of Pravahika and it does Vranaropana. So definitely this yoga is playing a very important role in the Management of conditions like IBS.

Priyangwadi Gana Kashaya: Priyangwadi Gana is used as *Kashaya dravya* in both the *Vasti* prepa-

ration. The *phalashruti* of this *gana* is explained as *Pakwatisaranashana*, *Sandhaneeya*, *Pittahara* and *Vrana Ropana*. Majority of the drugs possess *Tikta*, *Kashayarasa*, *Laghu*, *Rukshaguna*, *Sheetaveerya*, *Katu Vipaka*, *Tridoshahara* properties. It is also having *Grahiguna*. This combination will be mainly acting on regulating the *Kledakakapha*, *Apanavata* and *Prana vata*. Also regulates the intestinal motility and enteric nervous system. Its *Pichchilaguna* helps in *Sthambhana* of *Mala*. Thus helps in case of *IBS*.

Takra:

It is used as Avapa dravya in Takra Vasti Group as well as Anupana for the Shamanoushadhi in both the groups. Takra is having the qualities like Grahi, Kashaya, Amla Rasa, Laghu Guna, Ushna Veerya, Deepana. It is mainly indicated in three diseases i.e. Atisara, Grahani, Arshas. According to the modern it has got natural Lactobasillus. It will enhance the efficacy of Vastidravya. It mainly acts on Samanavata, Pachakapitta and Kledaka Kapha, hence useful in the management of IBS as additional therapy.

Kapittastaka Churna:

It is *Shamanoushadhi* in both the groups. This combination has mostly *Katu*, *Tikta*, *Madhura Rasa*; *Laghu*, *Ruksha Guna*, *Ushnaveerya*, *Katu Vipaka*, and *Kapha Vatahara* properties. Most of the drugs are possessing *Deepana*, *Pachana*, *Grahi* nature, as well as it is clearly mentioned that, this combination is indicated in *Grahani* and *Atisara*. Hence it corrects the *Samanavata*, *Pachakapitta*, *Kledaka Kapha* and *Apanavata*. Hence this combination was helpful in condition like IBS.

CONCLUSION

- Irritable bowel syndrome is a cluster of symptoms for which the etiological factors from modern science is still unknown. IBS has the wide range of manifestations so there is no justification gives similar name in *Ayurveda* that may be synonyms to IBS.
- On the basis of study it can be concluded that, some conditions like *Vataja*, *Kaphaja* and *Sangrhana Grahani*, *Vataja*, *Kaphaja*, *Bhayaja*, *Shokaja Atisara* and *Pravahika* are fairly reasonably similar with IBS in their clinical picture.

- The observation on onset chronicity and previous treatment show the chronic nature of the disease and the need of long course of treatment.
- The subjects of both the Groups shows highly significant results in all the subjective assessment parameters and almost equal percent of improvement over all, so it can be concluded that, both *Takra Vasti* and *Sangrahi Vasti* along with *Kapittastaka Choorna* as *Shamanaoshadhi* has significant role in the management of IBS. So it is proving the Alternate/Research hypothesis which states the treatment design is effective in the management of Irritable Bowel Syndrome.

REFERENCES

- Vaidya Jadavaji Trikamji Acharya Susruta Samhita with Nibandha Sangraha commentary of Dalhanacharya, Chaukhambha Orientalia, Varanasi–Sutrasthana15/41.
- 2. JAMA Patient page: Irritable Bowel Syndrome. The Journal of the American Medical Association (2006)295:960
- 3. Kumar. Abbas, Fausto, Aster, Robbinand Cortan Pathologic Basis of Disease; 8 Edition, Elsevier publication, p180
- 4. JAMA Patient page: Irritable Bowel Syndrome. The Journal of the American Medical Association (2006)295:960
- 5. Charaka Samhita- Vaidya Harischandra Simha Kushavaha-with Ayurveda Dipika commentary of Chakrapanidatta, Chaukhambha Orientalia, Varanasi-Chikitsasthan 15/60-64.
- 6. *Charaka Samhita*-Vaidya Harischandra Simha Kushavaha—with *Ayurveda Dipika* commentary of Chakrapanidatta, Chaukhambha Orientalia, Varanasi—*Chikitsasthana*15/68-70.
- 7. Madhava Nidana-4/1-3
- 8. *Charaka Samhita*-Vaidya Harischandra Simha Kushavaha–with *Ayurveda Dipika* commentary of *Chakrapanidatta*, Chaukhambha Orientalia, Varanasi–*Chikitsasthana* 19/30.
- 9. *Charaka Samhita*-Vaidya Harischandra Simha Kushavaha—with *Ayurveda Dipika* commentary of *Chakrapanidatta*, Chaukhambha Orientalia, Varanasi—*Chikitsasthana* 28/28-29.
- 10. Sushruta Samhita Vaidya Ambikadatta Shastri with Nibandha Sangraha commentary of

- Dalhana, Chaukhambha Orientalia, Varanasi— Sutrasthana-46/50
- 11. *CharakaSamhita* Vaidya Harischandra Simha Kushavaha–with *Ayurveda Dipika* commentary of Chakrapanidatta, Chaukhambha Orientalia,Varanasi–*Chikitsasthana*28/12
- 12. JAMA Patientpage: Irritable Bowel Syndrome. The Journal of the American Medical Association(2006)295:960
- Vagbhatta, Astanga Hridaya Translated by Prof. K.R. Srikantha Murthy, publisher-Chaukhambha Krishnadas Academy, Reprinted2008, Chaukhambha press Varansi Nidanasthana12/1
- Sushruta Samhita Vaidya Ambikadatta Shastri with Nibandha Sangraha commentary of Dalhana, Chaukhambha Orientalia, Varanasi–Chikitsasthana-38/87
- Sushruta Samhita Vaidya Ambikadatta Shastri with Nibandha Sangraha commentary of Dalhana, Chaukhambha Orientalia, Varanasi–Chikitsasthana-38/87, Dalhana Commentry.
- Vagbhatta, Astanga Hridaya Translated by-Prof. K.R. Srikantha Murthy, publisher-Chaukhambha Krishnadas Academy, Reprinted 2008, Chaukhambha press Varansi Sutrasthana-10/69-70
- Sushruta Samhita Vaidya Ambikadatta Shastri with Nibandha Sangraha commentary of Dalhana, Chaukhambha Orientalia, Varanasi–Sutrasthana- 38/45-47

- Sushruta Samhita Vaidya Ambikadatta Shastri with Nibandha Sangraha commentary of Dalhana, Chaukhambha Orientalia, Varanasi–Sutrasthana- 38/45-47
- Vagbhatta, Astanga Hridaya Translated by Prof. K.R. Srikantha Murthy, publisher-Chaukhambha Krishnadas Academy, Reprinted 2008, Chaukhambha press Varansi Chikitsasthana -5/22-23
- Vagbhatta, Astanga Hridaya Translated by Prof. K.R. Srikantha Murthy, publisher-Chaukhambha Krishnadas Academy, Reprinted2008, Chaukhambha press Varansi Chikitsasthana -9/110-112

How to cite this URL: Padma A B Et Al: Clinical Management Of Irritable Bowel Syndrome (Ibs) Through Takra Vasti And Sangrahi Vasti. International Ayurvedic medical Journal {online} 2016 { cited October - November, 2016} Available from: http://www.iamj.in/posts/images/upload/53 60.pdf