



A CLINICAL STUDY TO EVALUATE THE EFFICACY OF NAGARADYA CHURNA IN THE MANAGEMENT OF PRAVAHIKA W.S.R. TO AMOEBIC DYSENTERY

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ABSTRACT:

Pravahika has been described as a disease of Annavaha and Purishvaha strotas. It is described with synonyms like Purisha kshaya, Nischaraka or Nissaraka, Bhimbisi etc. Due to unhygienic food and lifestyle etc. the Udakvaha Strotas along with KledakaKapha and Apana Vayu and Samana Vayu gets vitiated and causes Pravahika Vyadhi. Pravahika can be correlated with Amoebic Dysentery which is caused by Protozoan *Entamoeba Histolytica* cyst. **Aim:** to evaluate the efficacy of Nagaradhya churna in Pravahika. **Methodology:** It is a clinical study with pre and post-test design where in 20 patients of either sex diagnosed as Pravahika w.s.r to type 2 Amoebic Dysentery were selected. All the patents were given Nagaradhya churna 6gms twice daily before food with Madhu, Tandulodaka for 14 days. **Results:** Nagaradya Churna is statistically highly significant on all parameters of Pravahika with an average percentage of improvement of 48.81%. Hence we conclude that effect observed with Nagaradya Churna is statistically significant in the management of Pravahika.

Key words: Pravahika, Nagaradhya churna, Amoebic Dysentery

INTRODUCTION:

Pravahika has been described as a disease of Annavaha and Purishvaha strotas. It is described with synonyms like Purisha kshaya, Nischaraka or Nissaraka, Bhimbisi etc. Due to unhygienic food and lifestyle etc. the Udakvaha Strotas along with KledakaKapha and Apana Vayu and Samana Vayu gets vitiated and causes Pravahika Vyadhi^{1,2,3,4}.

Pravahika can be correlated with Amoebic Dysentery which is caused by Protozoan *Entamoeba Histolytica* cyst⁵. Amoebiasis is one of the major causes of death in developing countries next to Malaria. The incidence rate of the disease is 11.4 per 1,00,000 persons as of 2014⁶. It is caused by the infection of the

Protozoan *E. Histolytica*, because of the poor sanitation. It is cured by modern medicines but the recurrence rate tends the disease from acute to chronic form.

Ayurveda formulations provides almost complete cure and may avoid recurrence. Nagaradya Churna contains *Shunthi churna*, *Ativisha churna*, *Mustak churna*, *Dhatvapushpa churna*, *Rasanjana churna*, *Kutajwaka churna*, *Indrayava Churna*, *Patha Churna*, *Bilwaphala majja churna* and *Katuki churna* as its formulation⁷ has been effective on Pravahika as per classics.

Basically unhygienic conditions are the causes of spread of the disease. It is manifested via the oral cavity along with food and water. Urbanization where the sewage and the drinking water supply are near gets inter-linked to cause the epidemics. And if the food taken is unwholesome or *virudha* in quantity, quality and timing may help in the formation of *Ama* and reduce resistance of the person thereby manifesting the *Pravahika*. Even though the line of treatment is with good prognosis but the rate of recurrence is high.

The disease is the result of the vitiation of *Samanavata*, *Kledakakapha* and *Apanavata*. Even though the above *Doshas* are vitiated to smaller extent the disease will not manifest unless it is associated with the *Ama*, which is the result of the *agnimandya*. As a result of the vitiation of the *Kledakakapha* and the *Samanavata*, or if the *doshic* vitiation is severe and the involvement of the *Pachakapitta / Agni* is not there then the disease will manifest without the formation of the *Ama* also. Thus the disease may manifest with the association of *Ama* or even without. This disease is the equivalent with the contemporary disease dysentery is said to be due to the infection of *Entamoeba histolytica* or *E. coli* or Bacteria. *Susruta* also affirmed *krimi* as the cause without specifying the type or name. Here we observe that in all cases of positive infestation the signs and symptoms may not be seen. Probably in these cases of *Pravahika*, once the person takes more of *virrudha ahara* or *Ama kara ahara* for the formation of *Ama*. *Ama* is the undigested food getting fermented in the stomach. By which the resistance of the person will decrease thereby the sub clinical signs and symptoms may become clinical.

AIMS AND OBJECTIVE:

- ✓ To Evaluate the Efficacy of Nagaradya Churna in Pravahika Vyadhi.

REVIEW OF LITERATURE:

- In Ayurvedic Samhita disease Pravahika is explained under Sushruta Samhita⁸, Madhav Nidana⁹, Charaka Samhita¹⁰, Yogratnakar¹¹, Astanga Hrudayam¹², Bhavprakash Uttarardha¹³
- Amoebic Dysentery is explained in Principles of Medicine by Davidson¹⁴, API Text Book of Medicine¹⁵, Harrison's Principles of Internal Medicine¹⁶.

DRUG REVIEW:

- The formulation of Nagaradya Churna has been described in Bhaisajya Ratnavali, Chapter 8th Grahanirogadhikar, shlok 29-31¹⁷ and contains *Shunthi churna*, *Ativisha churna*, *Mustak churna*,

Dhatvapushpa churna, Rasanjana churna, Kutajtwaka churna, Indrayava Churna, Patha Churna, Bilwaphala majja churna and Katuki churna.

MATERIALS AND METHODS:

SOURCES OF DATA:

- Patients fulfilling the criteria for the diagnosis of Pravahika were selected randomly from O.P.D and I.P.D of Shri Veer Pulikeshi Rural Ayurvedic Medical College Hospital P.G. And Research Center, Badami.

METHOD OF DATA COLLECTION:

- Study will be carried out on the Patients fulfilling the criteria for the diagnosis of Pravahika.

A INCLUSION CRITERIA:

1. Patient between the age of 20 to 50 years.
2. Patients with the Signs and Symptoms of Pravahika.
3. Patients with positive microscopic stool examination for *Entamoeba histolytica* cysts and having the symptoms of Amoebiasis.

B EXCLUSION CRITERIA:

1. Patients below age of 20 years and above 50 years of age.
2. Pregnant and lactating women
3. Patient with severe dehydration.
4. Patients with the associated systemic disorders like Hypertension, Tuberculosis, Diabetes Mellitus, Malignancy & other complications.

DIAGNOSTIC CRITERIA:

Sign and Symptoms mentioned in Ayurvedic Texts of Pravahika:

- Pravahanam (Tenesmus)
- Malapravrutti Samkhya/Vega (Frequency of defecation)
- Malapravrutti Matra (Stool quantity)
- Pureesha Swaroop (Consistency)
- Sashonit Malapravrutti (Presence of blood in stool)
- Udarshool (Abdominal pain)
- Agnimandya (Loss of appetite)
- Udar sparshasahatva (Abdominal tenderness)

STUDY DESIGN:

A Clinical Observational Study.

SAMPLE SIZE:

Total 20 number of patients were randomly selected falling in the criteria excluding drop outs.

POSOLOGY:

YOGA	NAGARADYA CHURNA
ANUPANA	MADHU, TANDULODAK
DOSAGE	1 Karsha (12 grams) in divided doses per day before meal
DURATION	14 Days
FOLLOW UP	7 days

SOURCE OF FORMULATION:

- Nagaradya Churna was prepared in the Rasa Shashtra and Bhaisajya Kalpana Department of Shri Veer Pulikeshi Rural Ayurvedic Medical College Hospital And Research Center, Badami, according to the classical references.

ASSESSMENT OF RESULTS:

- Depending upon Subjective and Objective Parameters, assessment of response was done

PARAMETERS OF STUDY:

- The improvement provided by therapy was assessed on the basis of Classical Sign and Symptoms.
- All the Signs and Symptoms were assigned with a gradation score depending upon the severity to assess the effect of the drug objectively.

CRITERIA FOR ASSESSMENT:

Observations of Improvement in the Lakshanas of the Pravahika was done on the following parameters,

A SUBJECTIVE CRITERIAS:

1.Pravahanam
Grade 0 - No Pravahana
Grade 1 - Alpa sashool pravahana with some quantity of mala (Alpa malapravrutti)
Grade 2 - Tolerable Sashool pravahan with every Malapravrutti
Grade 3 - Nontolerable Sashool pravahan with every Malapravrutti

2.Malapravrutti Samkhya/Vega/Frequency of defecation

Grade 0 - 0,1 or 2 Daily

Grade 1 - 3 to 6 Daily

Grade 2 - 7 to 12 Daily

Grade 3 - 13 or more than that-Daily

3.Malapravrutti Matra

Grade 0 - Prakrut

Grade 1 - Less than Prakrut but more than alpamatra

Grade 2 - Alpamatra

Grade 3 - Atyalpa or no Pureesha (only Kapha present)

4.Pureesha Swaroop (Consistency)

Grade 0 - Without Shleshma / Prakrut

Grade 1 - Sashleshma malapravrutti in some of the Vegas

Grade 2 - Every Vega of Malapravrutti is Sashleshma but Shleshma is Alpa.

Grade 3 - Every Vega of Malapravrutti is Sashleshma with more Shleshma and Alpa pureesha.

5.Sashonit Malapravrutti (Presence of blood in stool)

Grade 0 - Absence of Rakta

Grade 1 - Alpa matra of Rakta present in some Vegas of Malapravrutti.

Grade 2 - Alpa matra of Rakta present in every Vegas of Malapravrutti.

Grade 3 - Bahu matra of Rakta present in every Vegas of Malapravrutti.

6.Udarshool (Abdominal pain)

Grade 0 - No Abdominal pain

Grade 1 - Alpa udarshool only at the time of Malapravrutti

Grade 2 - Tolerable Udarshool present at the time of Malapravrutti and between the two Vegas of Malapravrutti.

Grade 3 - Persistent and nontolerable Udarshool present. Worst at the time of every Malapravrutti.

7.Agnimandya

Grade 0 - Prakrut / Udarlaghavata within 3 hrs. after meal

Grade 1 - Udarlaghavata within 4 hrs. after meal

Grade 2 - Udarlaghavata within 6 hrs. after meal

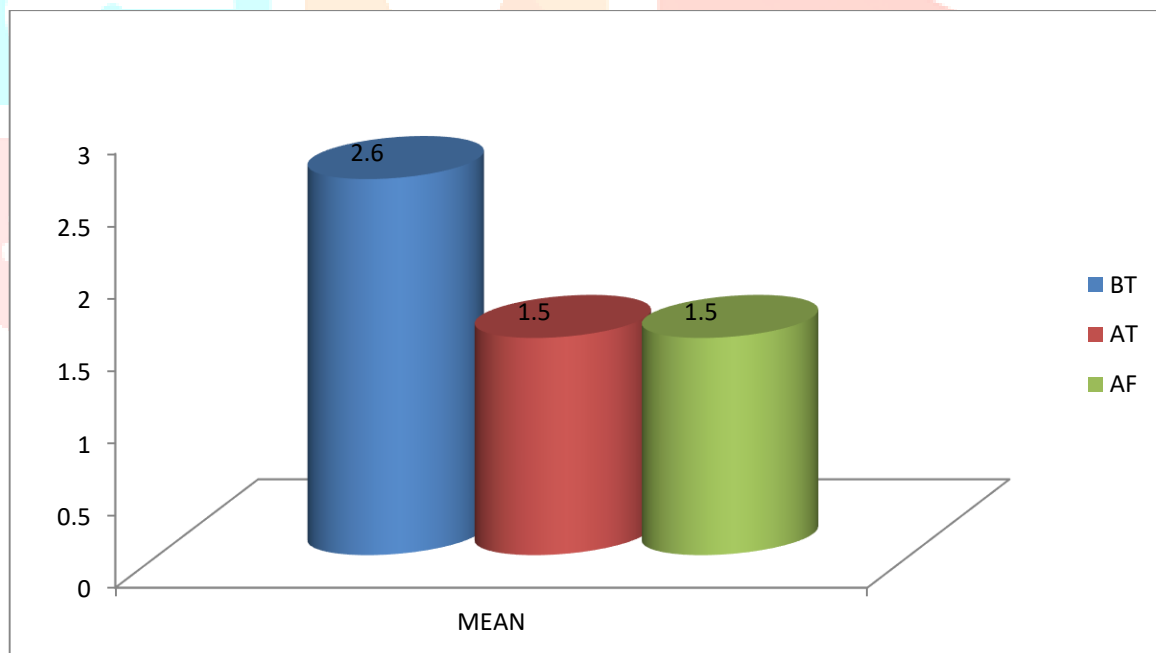
Grade 3 - No Udarlaghavata after meal

B OBJECTIVE CRITERIA:

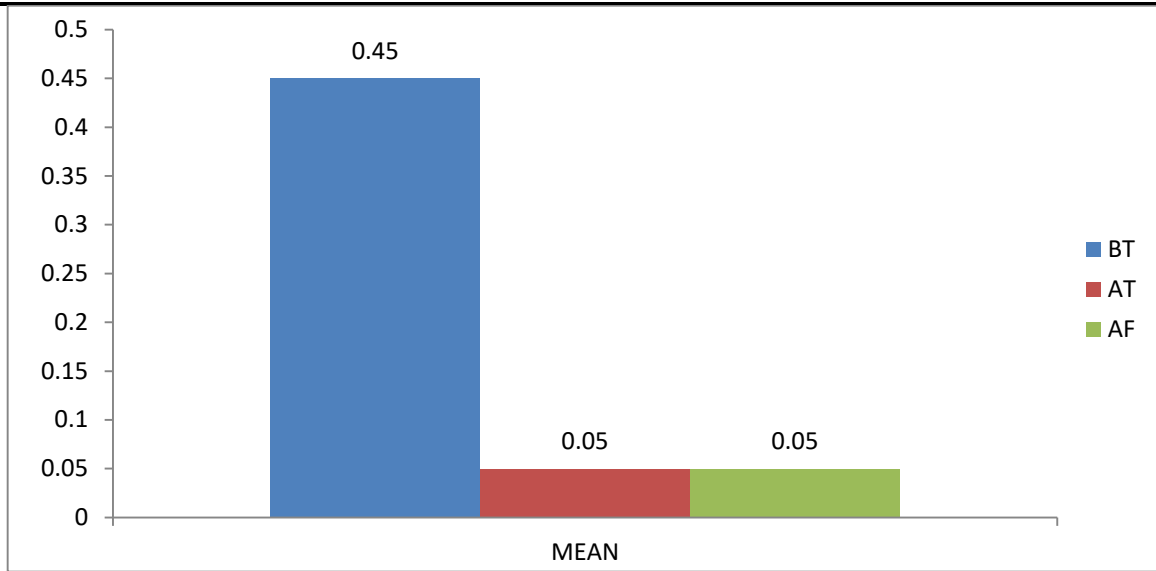
8.Udar sparshasahatva (Abdominal tenderness)
Grade 0 - Absent
Grade 1 - Tenderness with Ati udarapeedan - Deep tenderness
Grade 2 - Tenderness with Alpa udarapeedan - Superficial tenderness
Grade 3 - Severe tenderness. Patient do not allow to touch the abdomen

RESULTS**1. Pravahanam**

Mean BT	Mean		Mean difference	improve %	Paired t test			
	AT	AF			SD	T- value	P- value	Remark
2.6	AT	1.5	1.1	42.3	0.30	15.98	<0.001	HS
	AF	1.5	1.1	42.3	0.30	15.98	<0.001	HS

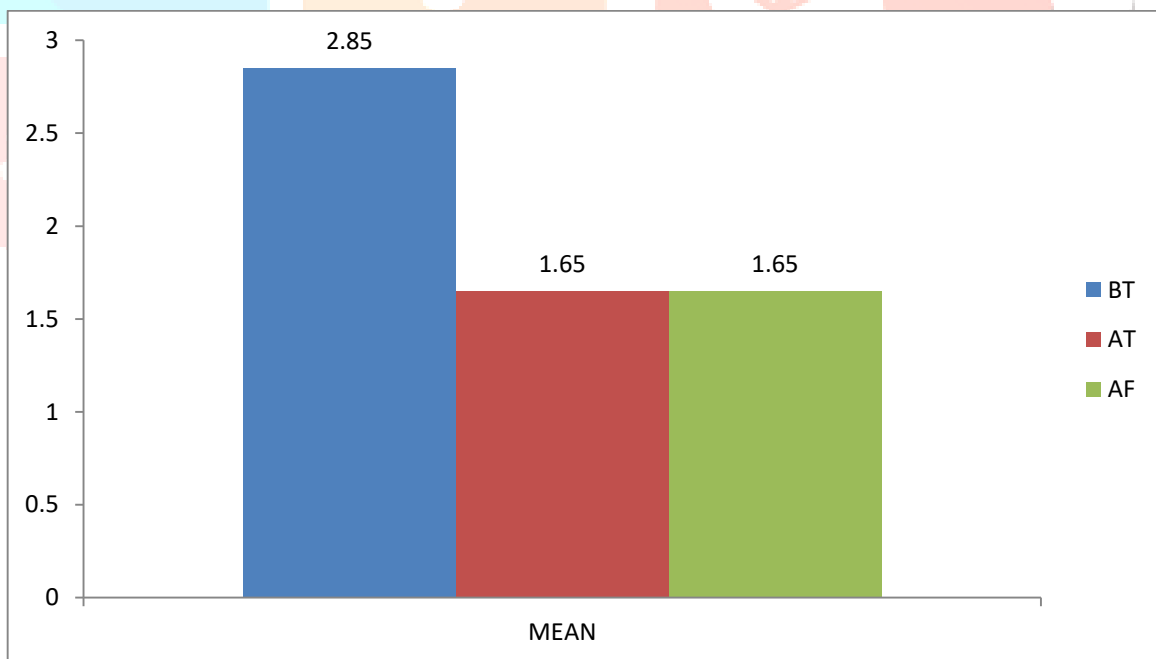
**2. Malapravrutti Samkhyā**

Mean BT	Mean		Mean difference	improve %	Paired t test			
	AT	AF			SD	T- value	P- value	Remark
0.45	AT	0.05	0.4	88.88	0.50	3.55	<0.01	HS
	AF	0.05	0.4	88.88	0.50	3.55	<0.01	HS



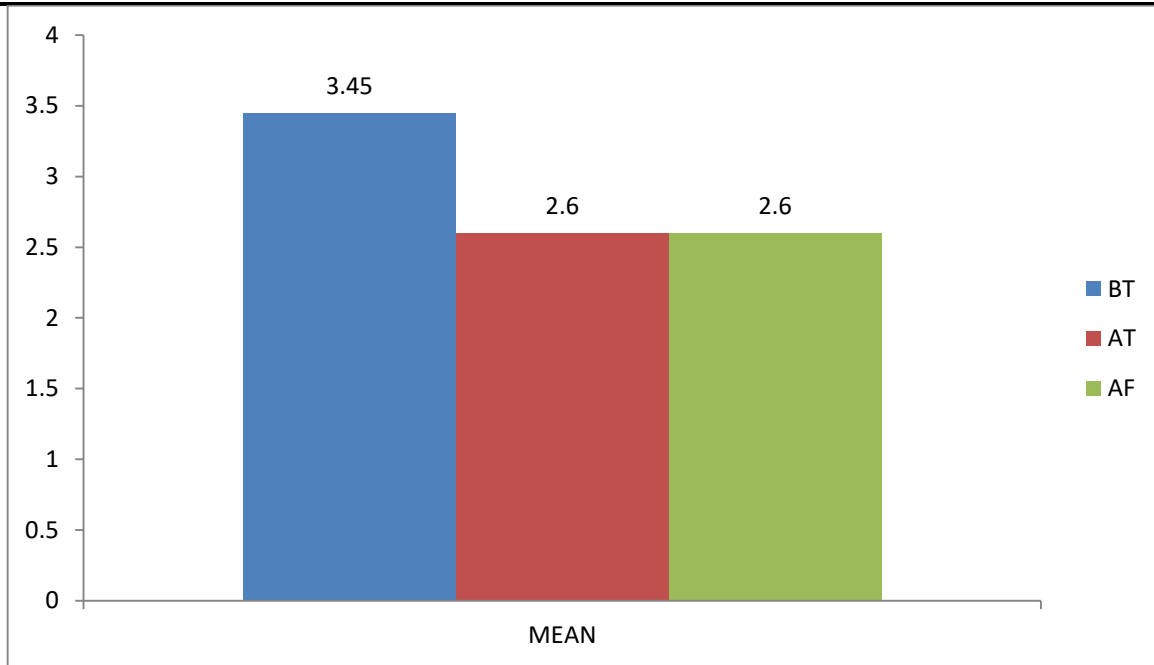
3. MALAPRAVRUTTI MATRA

Mean BT	Mean		Mean difference	improve %	Paired t test			
	AT	AF			SD	T- value	P- value	Remark
2.85	AT	1.65	1.2	42.10	0.41	13.07	<0.001	HS
	AF	1.65	1.2	42.10	0.41	13.07	<0.001	HS



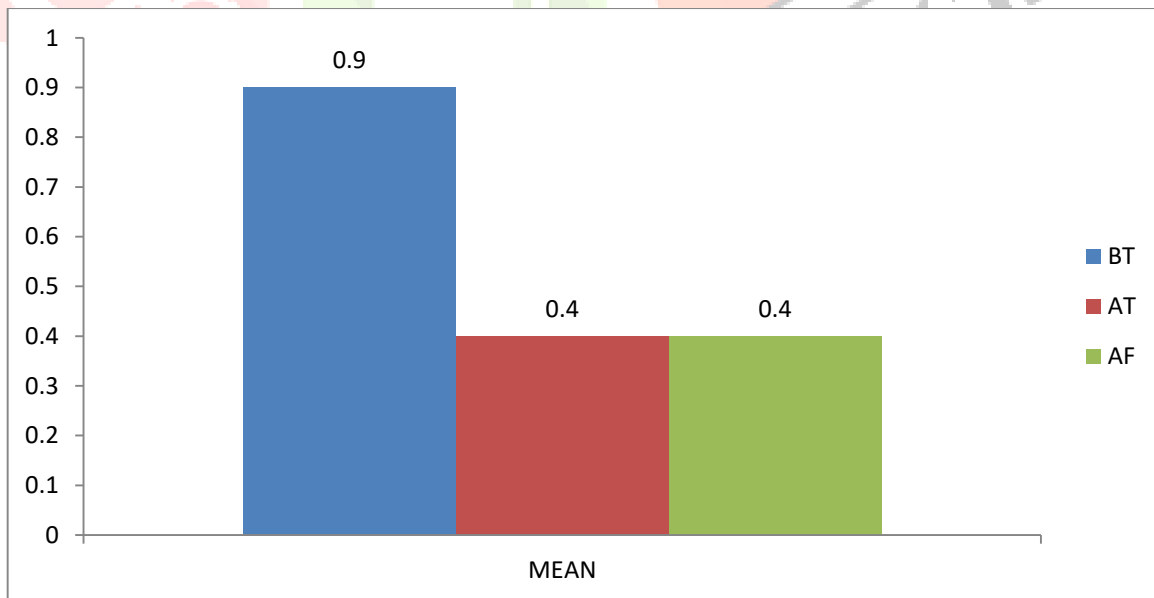
4. Puresha Swaroopa

Mean BT	Mean		Mean difference	improve %	Paired t test			
	AT	AF			SD	T- value	P- value	Remark
3.45	AT	2.6	0.85	24.63	0.48	7.76	<0.001	HS
	AF	2.6	0.85	24.63	0.48	7.76	<0.001	HS



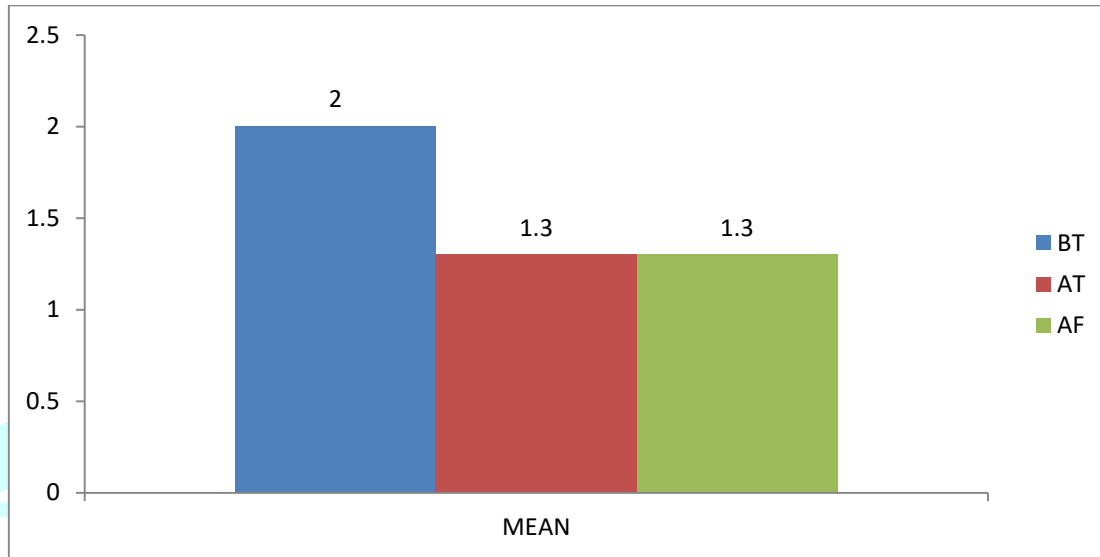
5. Sashonit Malapravrutti

Mean BT	Mean		Mean difference	improve %	Paired t test			
	AT	AF			SD	T- value	P- value	Remark
0.9	AT	0.4	0.5	55.55	0.51	4.35	<0.01	HS
	AF	0.4	0.5	55.55	0.51	4.35	<0.01	HS



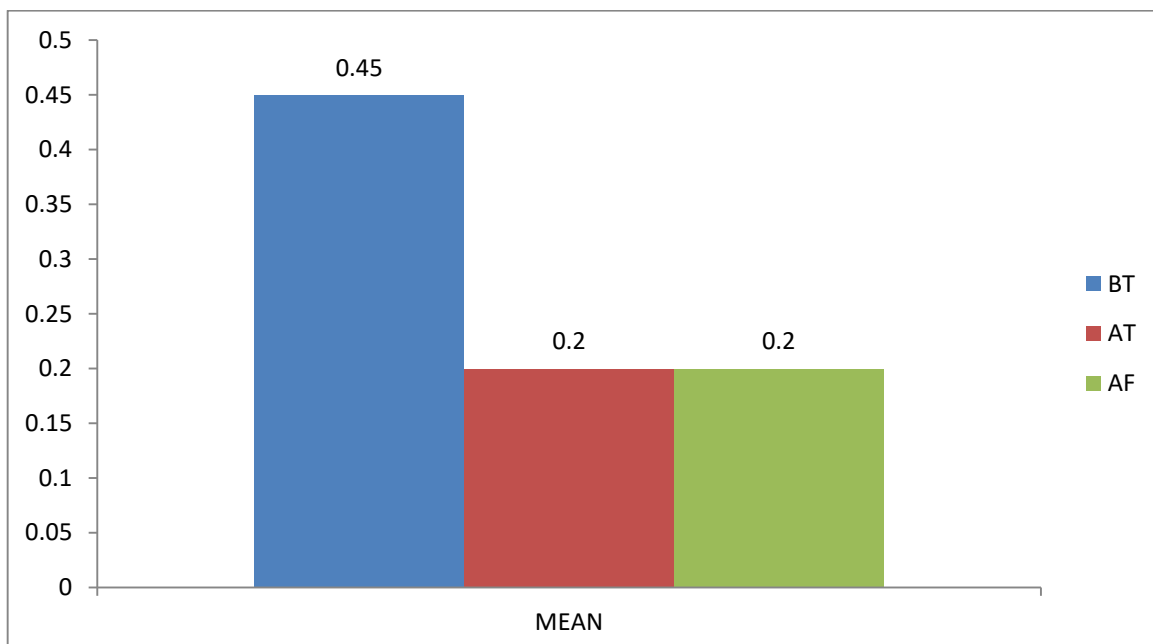
6. Udarashoola

Mean BT	Mean		Mean difference	improve %	Paired t test			
	AT	AF			SD	T- value	P- value	Remark
2	AT	1.3	0.7	35	0.47	6.65	<0.001	HS
	AF	1.3	0.7	35	0.47	6.65	<0.001	HS



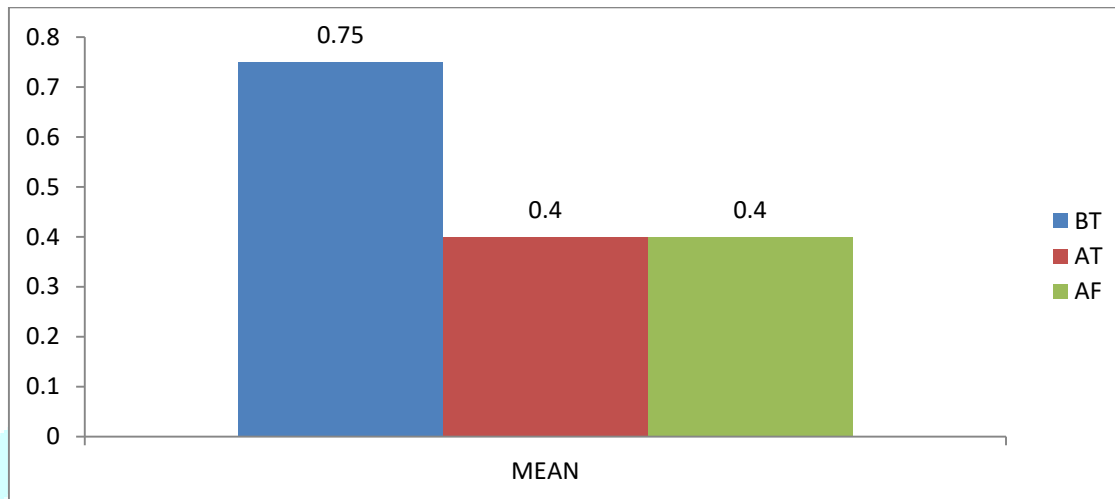
7. Agnimandhya

Mean BT	Mean		Mean difference	improve %	Paired t test			
	AT	AF			SD	T- value	P- value	Remark
0.45	AT	0.2	0.25	55.55	0.44	2.51	<0.05	S
	AF	0.2	0.25	55.55	0.44	2.51	<0.05	S



8. Udara Sparsha Asahatva

Mean BT	Mean		Mean difference	improve %	Paired t test			
	AT	AF			SD	T- value	P- value	Remark
0.75	AT	0.4	0.35	46.6	0.48	3.19	<0.01	HS
	AF	0.4	0.35	46.6	0.48	3.19	<0.01	HS



DISCUSSION

Pravahika is a disease appearing independent disease and also as a symptom for the *Atisara*. Sometimes it may appear as *Avasta bheda* of *Atisara* or as *Upadrava*. It may associate with *Pureesha kshaya*, which ultimately leads to *Guda bhramsha*. This all happens because of *Ama* associations. Thus when it is associated with *Ama*, *saraktata* and *vibaddha varchas* designated as “*Bahusoola Pravahika*”.

It can be said as the symptoms drawn from *Ayurvedic* classics about *Pravahika* are correlated to that of amoebic dysentery of present day. The *pratyatma niyata lakshana* of the *Pravahika* are explained as *Saphena*, *Punah punah alpalpa Kapha nissaranam*.

A single disease entity cannot be correlated with *Parvahika* as per modern literature even though colitis is more relevant. Amoebic colitis, Ulcerative colitis and IBD should be considered.

Though any specific causation is still unknown regarding the disease *Pravahika* classical narration on this disease serves definite contribution to invent the probable aetiology. During the clinical study looking to the historical observation most of the patients were having the history with the odd food habits such as *Adhyasana*, *Asatmyasana*, *Visamasana*, *Ajirnasana*, *Atimatrasana* of particular type of food & *Rasa*. These all seem to affecting the Biorhythm of the intestine and result in to disease. Here *Katu Rasa* also has shown significant interest to be the cause of the disease.

The disease develops initially from the gut *Atisara* as *nidanarthakara Vyadhi*. The food materials that cause *Atisara* also are capable of producing *Pravahika*. Thus the *Nidana parivarjana* is prime most in the management of *Pravahika*. The foods, which are increasing or vitiating *Vata*, are commonly capable of

giving rise the *Pravahika*. The food effect over *Annavaha Srotas* and *Pureeshavaha Srotas* is more comparative with other Srotas. The direct effect of food before to pachana i.e. *Ama avasta* and its genesis of *Ama* in *Srotas* are carried to the successive stage *pakwaavasta*. Thus the entire pathology is based upon the input and it is stated from *Ayurvedic* citations “*Nidana parivarjana* is the best”.

In the line of treatment for *Pravahika*, *Shodhana* of the *Dosha* in different forms have been mentioned. But when we consider today’s Bala and overall health status of the patients they are unsuitable to *Shodhana* procedures like *Vamana* and *Virechana*. Over here a *Shodhana* procedure which will give immediate result by inducing less physical strain and that having less restrictions to the daily routine of diet and behavior is the need of the hour. So *Nagaadya churna* are the treatment of choice which will do Shaman of the *Vata & Kapha Dosha*.

CONCLUSION:

- A single disease entity cannot be correlated with Parvahika as per modern literature even though Amoebic dysentery is more relevant, Amoebic colitis, Ulcerative colitis and IBD should be considered.
- Though any specific causation is still unknown regarding the disease Pravahika classical narration on this disease serves definite contribution to invent the probable aetiology. During the clinical study looking to the historical observation most of the patients were having the history with the odd food habits such as Adhyasana, Asatmyasana, Visamasana, Ajirnasana, Atimatrasana of particular type of food & Rasa. These all seem to affecting the Biorhythm of the intestine and result in to disease. Here Katu Rasa also has shown significant interest to be the cause of the disease.
- Nagaradya Churna is statistically highly significant on all parameters of Pravahika with an average percentage of improvement of 48.81%.

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