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A Randomized Comparative Clinical Study to Evaluate the Effect of *Shuntyadi Syrup* and *Malashodhana Syrup* in *Vibandha* w.s.r. to Functional Constipation in Children

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ABSTRACT

Background

Vibandha or Constipation in children is defined as a delay or difficulty in defecation present for two or more weeks. The most common cause of constipation is the functional variety. A person with functional constipation may be healthy yet has difficulty in defecation. It is responsible for more than 90% of cases of constipation in healthy children. Delayed or inadequate intervention may result in stool with holding behavior along with worsening constipation and may end up in poor appetite, impaired weight gain and frequent abdominal complaints and even causes hemorrhoids, anal fissure and Sentinel tag in due course of time. Hence it is a necessity to address functional constipation. The trial was proposed to study the comparative effect of Malashodhana Syrup & Shuntyadi Syrup on specific parameters of Vibandha w.s.r. to functional constipation. **Methodology:** 1. Children of age group 2-12 years, fulfilling the diagnostic criteria of functional constipation, whose parents are willing to give consent, were selected from Kaumarabhrithya OPD & IPD of SDM College of Ayurveda & Hospital, Udupi. 2. Selected subjects were randomly allocated into 2 groups of 15 patients each. Group A was administered with Malashodhana Syrup and group B with Shuntyadi Syrup both twice daily before food for 7 days. Was assessed before and after treatment with symptoms of Vibandha & Rome's criteria. **Result:** The result obtained were statistically analyzed and found that, both the groups showed highly significant result in reliving *Kshutmandya*, hard bowel movement, stool retention, increase in frequency of bowel movement & significant in reducing painful bowel movement, showed highly significant & significant result in reducing *Udarashoola* and *Vilomascha Marutha* respectively. Insignificant result in reducing number of episodes of fecal incontinence. **Conclusion:** Both Malashodhana Syrup & Shuntyadi Syrup can be considered as safe and effective in managing the *Vibandha* in children.

Key Words *Vibandha*, Functional Constipation, *Malashodhana Syrup* & *Shuntyadi Syrup*

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INTRODUCTION

Constipation in children is defined as a delay or difficulty in defecation persists for two or more weeks and sufficient to cause significant distress to the child and is associated with both physical and psychological morbidity and a poor quality of life.¹ The most common cause of constipation is the functional variety. It is responsible for more than 90 percent of cases of constipation in healthy children. In the present scenario functional constipation is more prevalent below the age of 15 years and in the childhood its prevalence varies from 0.7 % to 29.6%. It comprises of about 3% general paediatric outdoor visits and around 30% of the visits to paediatric Gastroenterologist.¹

Vibandha/Baddapureesha is similar to the features of constipation and which means *Sanga*, it indicates the state of *Srotodusti* especially *Pureeshavaha Srothodusti*.³ Its *Lakshana* includes voiding of small quantity of stool with difficulty or voiding a large quantity of watery stool with sound and pain. Current era due to changes in lifestyle, fast and stressful life, humans are frequently led towards irregular and bad habits of *Ahara*, *Vihara* and *Vegadharana* leading to several problems like *Vibandha*, *Ajirna*, *Sthoulya* etc. *Vibandha* not only caused because *Purishavahasrothodusti* it can also be caused because of *Apanavata Vaigunya* along with *Agnimandya*. As *Agni* is responsible for the formation of *Pakwa Mala*, *Agnimandya* is considered as main cause for *Vibandha*. Hence

Agni plays a significant role in *Vibandha*. Main line of treatment mentioned in our classics for *Vibandha* is *Agnideepana* & *Vatanulomana*. Though many formulations mentioned in *Samhitha* possess similar properties *Malashodhana Kashaya*⁴ mentioned in *Sahasrayoga Kashaya Prakarana* contains drugs such as *Katuka*, *Amalaka*, *Guduchi*, *Shunti*, *Shampakapallava* and *Shiva* was taken as trail drug. *Shuntyadi Kashaya*⁵ mentioned in *Bhavaprakasha Jatharagni Vikaradhikara* contains three drugs namely, *Shunti*, *Pippali* and *Haritaki* was taken as control drug. Both formulations possess drugs with properties that helps in proper formation of *Mala* and breaks the obstruction & brings them downwards there by relieving the *Vibandha*. To make the trial drug more palatable and easy administration the above mentioned *Kashayas* were made into syrup form.

OBJECTIVES

The study was carried out with the following objectives

- To evaluate the effect of *Malashodhana* Syrup in the management of *Vibandha* (functional constipation).
- To evaluate the effect of *Shuntyadi* Syrup in the management of *Vibandha* (functional constipation).
- To evaluate the comparative effect of *Malashodhana* Syrup over *Shuntyadi* Syrup in the management of *Vibandha* (functional constipation).

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MATERIALS & METHODS

METHOD OF PREPARATION:

Method of preparation of Kashaya

The dried drugs of taken in one part in coarse powder form along with 8 parts of water. The mixture is boiled over *Mandagni* and reduced to 1/4th part and filtered. This filtrate is used for further *Sharkara Kalpana* preparation.

Method of preparation of Syrup

To the prepared *Kwatha*, double quantity of *Sharkara* is added and boiled over *Mandagni* until the liquid attains syrup consistency. It is later filtered to get rid of impurities present in *Sharkara*. Method of preparation of *Malashodhana* syrup and *Shuntyadi* syrup are explained below,

1. Method of preparation of *Malashodhana* syrup

The dried drugs of *Malashodhana* syrup were collected in a quantity of 335g each. The drugs were soaked in water over night, next day decoction of drugs was prepared by adding 8litres of water, boiled and reduced to 4litres, and filtered, to this 2670g of sugar were added and

boiled over *Mandagni* till it is reduced to 4L. The total quantity of suspension obtained was 4L which is cooled down and bottled into 200ml each. They were packed in plastic containers which were sealed and labelled.

2. Method of preparation of *Shuntyadi* syrup

The dried drugs of *Shuntyadi* syrup were collected in a quantity of 670g each. The drugs were soaked in water over night, next day decoction of drugs was prepared by adding 8litres of water, boiled and reduced to 4litres, and filtered, to this 2670g of sugar were added and boiled over *Mandagni* till it is reduced to 4L. The total quantity of suspension obtained was 4L which is cooled down and bottled into 200ml each. They were packed in plastic containers which were sealed and labelled.

The parameters of both control drug and trial were assessed with fundament parameters of standardization.⁶

Table.1 contain the ingredients, part used and proportion of *Malashodhana* Syrup⁴:

Table.2 contain ingredients, part used and proportion of *Shuntyadi* Syrup⁵:

Table 1 Ingredients, part used and proportion of *Malashodhana* Syrup⁴

INGREDIENTS	BOTANICAL NAME	PART TO BE USED	QUANTITY
<i>Katuka</i>	<i>Picrorhiza kurroa</i> Royle ex Benth.	Root	1 Part
<i>Amalaka</i>	<i>Phyllanthus emblica</i> L.	Fruit pulp	1 Part
<i>Guduchi</i>	<i>Tinospora cordifolia</i> (Thunb) Miers.	Root	1 Part
<i>Shunti</i>	<i>Zingiber officinale</i> Roscoe.	Rhizome	1 Part
<i>Shampakapallava</i>	<i>Cassia fistula</i> Linn.	Fruit pulp	1 Part
<i>Shiva</i>	<i>Terminalia chebula</i> Retz.	Fruit pulp	1 Part
<i>Sharkara</i>			Q.S.

Table 2 Ingredients, part used and proportion of *Shuntyadi* Syrup⁵

INGREDIENTS	BOTANICAL NAME	PART TO BE USED	QUANTITY
<i>Shunti</i>	<i>Zingiber officinale</i> . Rose	Rhizome	1 Part
<i>Pippali</i>	<i>Pippli longum</i> . Linn	Fruit	1 Part
<i>Haritaki</i>	<i>Terminalia chebula</i> . Retz	Fruit pulp	1 Part
<i>Sharkara</i>			Q.S.

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SOURCE OF DATA

The study was approved by Institutional Ethics Committee (Ref: SDMCAU/ACA -49/ECH 12/2020-21). Diagnosed cases of Vibandha (Functional Constipation) were selected from OPD & IPD of SDM college of Ayurveda & Hospital, Kuthpady, Udupi. Health camps were conducted in primary schools nearest to the hospital and the screened cases were called to SDM hospital for further evaluation. Consequently, the children fulfilling the specific diagnostic criteria for Vibandha were enrolled for this clinical study.

DIAGNOSTIC CRITERIA

ROME III criteria, functional constipation depending upon the age of the child is defined as, in a child with developmental age <4 years at least two of the following symptoms in absence of any organic pathology should occur for at least one month and ≥ 2 criteria fulfilled at least once per week for at least 2 months in a child ≥ 4 years of age;

- i. Two or less defecations per week,
- ii. At least one episode of fecal incontinence per week,
- iii. History of retentive posture or stool withholding maneuver,
- iv. History of painful or hard bowel movement,
- v. Presence of large fecal mass in the rectum,
- vi. History of large-diameter stools that may obstruct the toilet.

INCLUSION CRITERIA

The children of either gender between the age group of 2-12 years fulfilling the diagnostic criteria of functional constipation, whose parents are willing to give consent, were registered for the clinical study.

EXCLUSION CRITERIA

Children having constipation secondary to any of the other diseases like hypothyroidism, hirschprung's disease and structural anomalies of anal canal were excluded from the trial based on clinical presentations.

INTERVENTION:

Plan of intervention:

- **Dosage form (*Kalpana*):** Syrup
- **Dose :** Dose was calculated according to Young's Formula.
2 years - 7ml
8 years - 20ml
3 years - 10ml
9 years - 20ml
4 years - 12ml
10 years - 22ml
5 years - 14ml
11 years - 22ml
6 years - 16ml
12 years - 24 ml
7 years - 18ml
- **Time of administration:** *Pragbakta* (Before food)
- **Anupana:** *Sukoshna jala* (lukewarm water)
- **Method of administration:** Oral, in 2 divided doses.

Group A – Administered with *Malashodhana*

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syrup

Group B - Administered with *Shuntyadi* syrup

- **Number of patients in each group:** 15 patients

- **Duration of study:**

Treatment duration: 7 days

Total duration of study: 15 days.

Clinical evaluations were conducted both before and after treatment. On seventh day, the patient was asked to comeback for an evaluation. On day 14, a final clinical assessment was conducted.

The written informed consent of the parent/guardian is invariably taken prior to his/her child's inclusion in the study.

ASSESSMENT CRITERIA:

A detailed case sheet proforma was prepared and assessment was done based on the grading mentioned under Pediatric Rome III criteria for constipation & symptoms of *Vibandha*.

Subjective criteria:

According to Rome III criteria

- Painful defecation (Assessed by VAS)
- Frequency of defecation
- Number of episodes of fecal incontinence
- Excessive stool retention
- Hard bowel movement
- Large fecal mass in the rectum
- History of large diameter stools that may obstruct the toilet

According to symptoms of *Vibandha*

- Kshutmandya* (reduced appetite)
- Udarashoola* (Abdominal pain)
- Vilomascha Maruta* (upward movement of flatus in the abdomen)

Table showing gradation for assessment criteria:

Symptoms were selected based on *Lakshanas* of *Vibandha* & Rome III criteria for the diagnosis of *Vibandha*. Gradings were given for each symptom based on severity.

OBSERVATION

Functional constipation is more prevalent in in weaning, toddler, pre-school & school age group children.⁷ Among 30 patients it was found that maximum number of patients belongs to the age group of 2-6 years (66.66%). 26 (86.66%) subjects had mixed diet, remaining 4 (13.33%) were taking vegetarian diet. Irrespective of age 29 patients had < 1 litre water intake per day, only one patient had 1-2 litre of water intake per day. *Agni Vaishamy* is considered as Moola for all the disorders, 73.33% subjects had *Mandagni*, *Agnimadyatha* is the main cause for *Vibandha*, majority of the patients had *Mandagni*. Maximum number of subjects had *Krura Kosta* i.e. 83.33 %. The general symptoms of *Vibandha* were assessed in the patients of present study shows that, the incidence of hard stool & irregular defecation was present in all the 30 patients (100%), straining while defecation was present in 29 patients (96.66%) & painful defecation was present in 26 patients (86.66%). On observing the symptoms which are commonly associated with *Vibandha*, reduced appetite was present in 29 (96.66%) subjects, 21 (70%) subjects had pain abdomen, 6 (20%) subjects had

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incontinence & 2 (6.66%) subjects had bleeding per rectum.

carried out using the statistical package for social science (SPSS) VER.20.

RESULTS

Subjective Parameters: Within the group assessed using Wilcoxon Signed-Rank Test

Statistical methods - Statistical analysis was

Table No.3 explains the effect on parameters within the groups.

Table 3 Effect on parameters within the groups.

Parameter	Negative rank			Positive rank			Ties	Total	Z value	P value	Inference
	N	MR	SR	N	MR	SR					
1. <i>KSHUTHMANDYA</i>											
GROUP A – MALASHODHANA SYRUP											
BT-AT	14	7.50	105.0	0	.00	.00	0	15	-3.37	0.001	HS
BT-FU	14	7.50	105.0	0	.00	.00	0	15	-3.37	0.001	HS
GROUP B – SHUNTYADI SYRUP											
BT-AT	15	8	120	0	.00	.00	0	15	-3.50	0.000	HS
BT-FU	15	8	120	0	.00	.00	0	15	-3.50	0.000	HS
2. <i>UDARASHOOLA</i>											
GROUP A – MALASHODHANA SYRUP											
BT-AT	10	5.5	55	0	0.00	0.00	1	15	-2.85	0.004	S
BT-FU	10	5.5	55	0	0.00	0.00	1	15	-2.85	0.004	S
GROUP B – SHUNTYADI SYRUP											
BT-AT	13	7	91	0	0.00	0.00	0	15	-3.41	0.001	HS
BT-FU	13	7	91	0	0.00	0.00	0	15	-3.41	0.001	HS
3. <i>VILOMASCHAMARUTHA</i>											
GROUP A – MALASHODHANA SYRUP											
BT-AT	10	5.50	55	0	0.00	0.00	0	15	-3.162	0.002	S
BT-FU	10	5.50	55	0	0.00	0.00	0	15	-3.162	0.002	S
GROUP B – SHUNTYADI SYRUP											
BT-AT	13	7.00	91	0	0.00	0.00	0	15	-3.602	0.000	HS
BT-FU	13	7.00	91	0	0.00	0.00	0	15	-3.602	0.000	HS
4. FREQUENCY OF STOOL											
GROUP A – MALASHODHANA SYRUP											
BT-AT	15	8.00	120	0	.00	.00	0	15	-3.493	0.000	HS
BT-FU	15	8.00	120	0	.00	.00	0	15	-3.508	0.000	HS
GROUP B – SHUNTYADI SYRUP											
BT-AT	15	8.00	120	0	.00	.00	0	15	-3.473	0.001	HS
BT-FU	14	7.50	120	0	.00	.00	1	15	-3.372	0.001	HS
5. EPISODES OF FECAL INCONTINENCE											
GROUP A – MALASHODHANA SYRUP											
BT-AT	2	1.50	3.00	0	0.00	0.00	0.00	15	-1.342	0.180	NS
BT-FU	2	1.50	3.00	0	0.00	0.00	0.00	15	-1.342	0.180	NS
GROUP B – SHUNTYADI SYRUP											
BT-AT	3	2.00	6.00	0	0.00	0.00	1	15	-1.633	0.102	NS
BT-FU	3	2.00	6.00	0	0.00	0.00	1	15	-1.633	0.102	NS
6. HARD STOOL											
GROUP A – MALASHODHANA SYRUP											
BT-AT	15	8	120	0	0.00	0.00	0	15	-3.49	0.000	HS
BT-FU	15	8	120	0	0.00	0.00	0	15	-3.49	0.000	HS
GROUP B – SHUNTYADI SYRUP											
BT-AT	15	8	120	0	0.00	0.00	0	15	-3.57	0.000	HS
BT-FU	14	7.50	105	0	0.00	0.00	1	15	-3.44	0.001	HS
7. PAINFUL BOWEL MOVEMENT											
GROUP A – MALASHODHANA SYRUP											

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BT-AT	12	6.50	78	0	0.00	0.00	1	15	-3.11	0.002	S
BT-FU	12	6.50	78	0	0.00	0.00	1	15	-3.11	0.002	S
GROUP B – SHUNTYADI SYRUP											
BT-AT	12	6.50	78	0	0.00	0.00	1	15	-3.11	0.002	S
BT-FU	12	6.50	78	0	0.00	0.00	1	15	-3.11	0.002	S
8. STOOL RETENTION											
GROUP A – MALASHODHANA SYRUP											
BT-AT	14	7.50	105.00	0	0.00	0.00	1	15	-3.74	0.000	HS
BT-FU	14	7.50	105.00	0	0.00	0.00	1	15	-3.74	0.000	HS
GROUP B – SHUNTYADI SYRUP											
BT-AT	15	8	120.00	0	0.00	0.00	0	15	-3.87	0.000	HS
BT-FU	15	8	120.00	0	0.00	0.00	0	15	-3.87	0.000	HS

Table 4 Effect on parameters between the groups

Parameters	N	GrA (n)	Gr B (n)	Mean rank		Sum of rank		U value	Z value	P value	Remarks
				Gr A	Gr B	Gr A	Gr B				
1. KSHUTHMANDHYA											
BT-AT	15	14	15	16.14	13.93	226	209	89	-0.785	0.432	NS
BT-FU	15	14	15	16.14	13.93	226	209	89	-0.785	0.432	NS
2. UDARASHOOLA											
BT-AT	15	11	13	10.86	13.88	119.50	180.50	53.50	-1.251	0.211	NS
BT-FU	15	11	13	10.86	13.88	119.50	180.50	53.50	-1.251	0.211	NS
3. VILOMASCHAMARUTHA											
BT-AT	15	10	13	12	12	120.00	156.00	65.00	0.00	1.000	NS
BT-FU	15	10	13	12	12	120.00	156.00	65.00	0.00	1.000	NS
4. FREQUENCY OF STOOL											
BT-AT	15	15	15	16.67	14.33	250.00	215.00	95	-0.80	0.42	NS
BT-FU	15	15	15	15.97	15.03	239.50	225.50	105.50	-0.32	0.74	NS
5. FECAL INCONTINENCE											
BT-AT	15	2	4	3.00	3.75	6.00	15.00	3.00	-0.49	0.623	NS
BT-FU	15	2	4	3.00	3.75	6.00	15.00	3.00	-0.49	0.623	NS
6. HARD STOOL											
BT-AT	15	15	15	13.90	17.10	208.50	256.50	88.50	-0.726	0.468	NS
BT-FU	15	15	15	13.40	17.60	201.00	264.00	81.11	-0.726	0.468	NS
7. PAINFUL BOWEL MOVEMENT											
BT-AT	15	13	13	12.54	14.46	163.00	188.00	72.00	-0.726	0.468	NS
BT-FU	15	13	13	12.54	14.46	163.00	188.00	72.00	-0.726	0.468	NS
8. STOOL RETENTION											
BT-AT	15	15	15	16.00	15.00	240.00	225.00	105.00	-1.000	0.317	NS
BT-FU	15	15	15	16.00	15.00	240.00	225.00	105.00	-1.000	0.317	NS

Non-Parametric data: Analysis between the group assessed using Mann-Whitney U Test

Table no.4 explains the effect on parameters between the groups

Both the groups showed highly significant changes in reliving Kshutmandya, hard bowel movement, stool retention, increase in frequency of bowel movement & significant in reducing painful bowel movement. *Shuntyadi* Syrup &

Malashodhana Syrup showed highly significant & significant in reducing *Udarashoola* and *Vilomascha Marutha* respectively. Both the groups showed not significant in reducing number of episodes of fecal incontinence. Between the groups, statistically both the groups are shows statistically non-significant result in all the parameters. It may be due to the small sample size. But clinically both groups are showing

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significant improvements in the management of *Vibandha*.

DISCUSSION

Vibandha is a condition caused by vitiation of *Vata Dosha* especially *Apana Vata* along with *Agnimandya*. *Vibandha* as a separate disease entity is not mentioned in the Ayurveda classics, but described as either symptom or complication in association with many diseases. *Vata Prakopaka Ahara & Vihara* are the prime causes of *Vibandha*. This can be understood as improper dietary habits & lifestyle and constant mental stress that results in disturbances of *Agni* and *Apanavata*. *Agni* has been meant to be a sign of life in the body. *Agni*, the pivot, around which the remaining factors responsible for the maintenance of health & causation of disease revolve. *Agnimandya* and *Apana Vata Dushti* is invariably present in the *Samprapti* of the *Vibandha* along with derangement in the function of *Pachaka Pitta, Avalambaka Kapha & Samana Vata*.

Study reveals school going age group was more likely to suffer from the *Vibandha* (Constipation), As this age group was more exposed towards the changing the life style, food habits and behavioural modification. When compared to vegetarians, the prevalence of *Vibandha* was greater among non-vegetarians. Regular intake of meat will be the cause as it is high in fat, takes longer for the digestive tract to process it. Because of tough protein fibers it is difficult for

digestion and it is rich in iron, which are constipating in nature. Many processed meats contain nitrate to extend their shelf life. These nitrates also contribute to constipation.⁸ Studies also suggests that constipation may be caused due to fluid restriction. Water movement through the gastrointestinal wall has great significance. There is an equilibrium between intestinal water secretion and absorption it should be maintained within narrow limit, disturbance will result in diarrhoea or constipation.⁹

Ama is formed as a result of *Mandagni*, this *Ama* will block the normal passage of *Vayu*, particularly *Apanavata*, leading to *Pureesha Apravartana*. Improper dietary habit might be the cause for *Vibandha* in *Vishamagni* children. In *Samagni* children also *Vibandha* was observed this might be due to *Apana Vata Vaigunya* caused by *Vatakara Ahara-Vihara*.

In *Vibandha*, the majority of subjects typically have *Krura Koshta* as a result of improper *Ahara* and *Viharas*. The same was observed in present study. In this case *Vata* is the predominant *Dosha*, which can cause hard stools, difficulty urinating, or even non-elimination when present. Both the groups syrups are predominant with *Katu Tiktha Rasa Pradhana*, having *Deepana, Pachana* properties. *Deepana, Pachana dravya* enhances the status of *Agni*, it does the *Ama Pachana* & unclogs the *Srotas*. *Piperine, pellitorine, shogaol & zingerone* act as carminative & stimulant to gastrointestinal tract, relieves *Vibandha*.

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Dravya present in both syrup has *Deepana*, *Pachana* & *Vatanulomana* property which helped in relieving stool retention and there by relieved *Udarashoola*. *Anulomana* of Vata is the main line of treatment in *Vibandha*. Drugs like *Haritaki*, *Shampakapallava* have the property of *Vatanulomana*. By virtue of *Vathanulomana* property *Vilomagathi* of *Marutha* got corrected and there by *Vibandha* got relieved.

For the proper formation of *Mala*, *Agni* should be in *Samavasta*, so *Agni Deepana*, *Amapachana* should be done first, Drugs like *Shunti*, *Pippali*, *Guduchi*, *Katuki* acts as *Agni Deepaka* and *Amapachaka* The drugs present in both formulations helps in proper formation of *Mala* and expel them out. *Haritaki* and *Katuki* act as *Anulomaka* and *Bhedaka* respectively. *Shampakapallava*, *Amalaki* & *Sharkara* acts as *Virechaka*. Tannin, antraquinoneglycones, antraquinoneglycoside, picrorhizin, kutkin act as laxative.¹⁰ By the action of these constituents, frequency of defecation increased & thus acted positively on *Vibandha*.

Fecal incontinence has been defined as the voluntary or involuntary passage of faeces in inappropriate place. The coexistence of constipation & fecal incontinence has long been recognized. Fecal incontinence is mostly due to impacted stool in the rectum. In general, fecal incontinence responds to laxative therapy.¹¹ Both formulations contain *Bedhana*, *Virechaka* property & that may help in relieving fecal incontinence. In the present study subjects having

fecal incontinence were less hence result showed insignificance statistically.

Anulomana Karma of *Haritaki* facilitates proper formation of stool & also helps in reduced re-absorption of water from faeces and resolve hard stools. *Katuki* helps in breakdown of hard bowel and expel them out. Tannin, picrorhizin, kutkin acts as laxative. All these helps in resolving Hard stool and there by facilitating defecation. Painful bowel is due to mala *Katinatha* & *Apana Vayu Vridhi* in *Pureeshavaha Srotas*. Both the formulations help in relieving *Mala Katinatha* and brings proper functioning of *Apanavayu*. Further *Pippali* & *Harithaki* has *Vedana Sthapaka Karma* which aids in reduction of pain while defecation.

Both the formulation helps in clearing bowel regularly due to *Virechaka* property of drugs. Active principles present in the formulations helps in increasing intestinal motility and thereby regular clearance of bowel.

Malashodhana Syrup & *Shuntyadi Syrup* possesses properties like *Deepana*, *Pachana* & *Vatanulomana* that helps in proper formation of *Malas* and breaks the obstruction & brings them downwards there by reliving the *Vibandha*. Through the clinical study, it was discovered that all of the *Vibandha* symptoms were reduced. Moreover, additionally after treatment period and during follow-up, there was no recurrence of symptoms. The drugs in *Malashodhana Syrup* & *Shuntyadi Syrup* are equally effective which was because of the *Deepana*, *Pachana*,

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Srotoshodhana & *Vatanulomana* property
successful in breaking the *samprapthi*.

CONCLUSION

Statistically both the groups showed highly significant changes in reliving *Kshutmandya*, hard bowel movement, stool retention, increase in frequency of bowel movement & significant in reducing painful bowel movement. Shuntyadi Syrup showed highly significant result in *Udarashoola* and *Malashodhana* Syrup showed significant result in *Vilomascha Marutha* respectively. The present study, Clinically & statistically discloses both *Malashodhana* Syrup & *Shuntyadi* Syrup are equally effective in the management of *Vibandha*. Acted positively on frequency and consistency of stool. Both the syrups were well tolerated by the subjects without the occurrence of any kind of adverse reactions throughout the completion of the study.

ORIGINAL RESEARCH ARTICLE

REFERENCE

1. Ghai O P, Paul V K and Bagga A. Essential Paediatrics. 8th ed. New Delhi: CBS Publishers and distributors (pvt) ltd, 2013: 283.
2. Vishal, madhurima Prasad, risabh Kumar Rana -Epidermology, Demographic Profile and clinical variability of Functional Constipation: A Retrospective study in North Bihar. October 2018; vol. 5.
3. Agnivesha. Charaka Samhita: Revised by Charaka and Dridhabala with Ayurveda Dipika Commentary of Chakrapanidatta. edited by Yadavji Trikamji Acharya, Sutrastana 5th chapter, Verse.7, 3rd edition. Reprint 2017, Varanasi: Chaukhambha Sanskrit sansthan; p.251
4. Vidyath R and Nishteshwar K, Sahasrayoga(2 nd ed.), KashayaPrakarana; Verse 64. Varanasi: Choukhambha Publications, 2018:
- 5.
5. Mishra. B. Bhavprakash of Bhava Mishra, volume-2 Jwaravikara, Madhyam Khande, Jatharagni Vikaradhikar 6(Ajirna), Varanasi: Chaukhambha Sanskritbhavan, , 2070, p-77.
6. Bhat P, S J N, Chithralekha. Preparation and physicochemical evaluation of Malashodhanasyrup and Shuntyadi Syrup. June - July 2023. 2023;7(5):405-12. doi:10.46607/iamj01p7052023
7. Robert M. Kliegman, Stanton, St Geme, Schor, Nelson Textbook of Pediatrics, volume-2, Chapter 306, 1 st South Asia Ed. 2017, p.1763.
8. Taba Taba Vakili S, Nezami BG, Shetty A, Chetty VK, Srinivasan S. Association of high dietary saturated fat intake and uncontrolled diabetes with constipation: Evidence from the National Health and Nutrition Examination Survey. *Neurogastroenterology & Motility*. 2015;27(10):1389-97. doi:10.1111/nmo.12630
9. Manz F, Wentz A. The importance of good hydration for the prevention of chronic diseases. *Nutrition Reviews*. 2005;63. doi:10.1111/j.1753-4887.2005.tb00150.x
10. Anonymous, Council of Scientific & Industrial Research, The Wealth of India-A Dictionary of Indian Raw Materials and Industrial Products, Vol VIII. Reprint of 1956. New Delhi: National Institute of Science Communication; 1999. p155
11. Nurko S, Scott SM. Coexistence of constipation and incontinence in children and adults. *Best Practice & Research Clinical Gastroenterology*. 2011;25(1):29-41. doi:10.1016/j.bpg.2010.12.002.