

Prevalence and Effectiveness of Siddha management in Children with Constipation

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ABSTRACT

Constipation is a common functional gastro intestinal disorder. As per the Siddha concept dietary habits are the main cause of constipation. Siddha medicine treats constipation as a problem arising due to the predominance of the vali kutram. To evaluate the prevalence and effectiveness of Siddha management among children with constipation attending OPD of Kuzhandhai Maruthuvam at NIS. This was a prospective study on 100 Children with the age group 2-12 years seeking medical advice for their complaint of constipation. This study was conducted in National Institute of Siddha, Tambaram with IEC approval. Questionnaire containing Rome III criteria points of functional constipation were distributed to the parents/guardians and data collected the same. Prevalence of constipation in children reported at NIS-Kuzhandhai Maruthuvam OPD is 28%. Effectiveness of siddha medicines for the management of constipation is 78%.

KEYWORDS: Constipation, Siddha, Maantha Ennai, Meni Thylam, Nilavagai Chooranam

I. INTRODUCTION

Constipation is defined as a delay or difficulty in defecation, present for 2 or more weeks and sufficient to cause significant distress to the patient. It is increasingly being recognized as a very common problem in children and is associated with both physical and psychological morbidity and a poor quality of life. The normal stool frequency decreases from 4 or more per day during infancy to once per day at 4 year of age. A stool frequency of <2/week is considered abnormal for all ages. Constipation can be divided into two groups:

functional or organic. In a study of 135 Indian children with constipation, 85% had functional constipation and 15% had an organic etiology (most commonly, Hirschsprung disease, cerebral palsy and meningomyelocele)⁽¹⁾

Constipation is typically characterized by lack of periodicity in defecating, bulky stools and difficulty or pain during defecation. Constipation is one of the ten most frequent problematics that a general pediatrician deals with, accounting for 25% of referrals to pediatric gastroenterologists worldwide. According to the diagnostic criteria for constipation, a patient must have experienced less than 3 bowels per week. Prevalence rates of constipation range from 0.7% to 29.6% of the worldwide general population. Most studies do not report prevalence difference between boys and girls or correlation with socio-economic factors.⁽²⁾

The increase in intake of low residue diet and sedentary lifestyle is responsible for the increase in functional constipation in children. The stools become hard and cause pain on passage which leads to association of defecation with pain and withholding. These further increases stool size and hardness with more pain on defecation and a vicious cycle of constipation is initiated. Children with functional constipation often have abdominal pain (10- 70%), anorexia (10-25%), enuresis or urinary tract infections (30%) and psychological problems (20%)⁽¹⁾

Siddha treats constipation as a problem arising due to the predominance of the vali kutram. As per the Siddha concept dietary habits are the main cause of constipation. Siddha medicine such as Maantha Ennai, Meni Thylam, Nilavagai Chooranam are the classical siddha herbal formulation which has more laxative property used

for treating constipation. These drugs are given to the children with constipation for the duration of 1 week, has got relief from the constipation and other associated problems. Siddha medicine has lot of herbal formulation to treat constipation. There are number of children reporting to Kuzhandhai Maruthuvam OPD National Institute of Siddha daily with complaints of constipation. Hence, we would like to evaluate the prevalence of constipation among the children reporting to our OPD and effectiveness of routinely prescribed Siddha medicines in our OPD for constipation.

II. MATERIALS AND METHODS

This was a prospective study on 100 Children with the age group 2-12 years seeking medical advice for their complaint of constipation. Method of the study was systematic random sampling method. Prior to the start of the study, approval was obtained from the Institutional Ethical Committee (IEC) at NIS (NIS/IEC/2019/M-34, 22.02.2019). The study was upload in CTRI (CTRI/2019/06/019692). Questionnaire containing Rome III criteria points of functional constipation were distributed to the parents/guardians and data collected the same.

Study type: observational study.

Study design: prospective study.

Study subject: children attending kuzhandhai maruthuvam opd at NIS.

Study place: ayothidoss pandithar hospital

Study period: 6 months

Sample size: 100 Children

Sampling method: Children were randomly selected using systematic random sampling method.

INCLUSION CRITERIA

- Children with classical features of ROME-III criteria
- Age group 2 to 12 years
- Both male and female children

EXCLUSION CRITERIA

- Children less than 2 years.
- Children more than 12 years.
- Constipation due to pathological causes such as Hirschsprung disease, abnormal narrowing of colon and rectum.

STUDY TOOL

Study tool was interview schedule solicited information on socio demographic profile, Exclusive constipation of the study subjects. Data was collected by means of personal interview using a standardized questionnaire.

Rome III Criteria:

- According to the Rome III criteria a diagnosis of chronic constipation in childhood is established when 2 or more of the following are present for at least one month for infants children up to 4 years. For children over 4 years of age, symptoms should last for at least two months.
- Two or less bowel movements per week
- At least one episode of fecal incontinence per week after the child has acquired complete bowel control.
- History of extensive fecal retention or withholding behavior by the child
- Having hard and painful stools
- Large fecal mass on digital rectal examination
- Large in diameter stools that cause rectal outlet obstruction.

III. RESULTS AND OBSERVATION

Table: 1 Gender distribution

VARIABLE	FREQUENCY
Male child	54%
Female child	46%

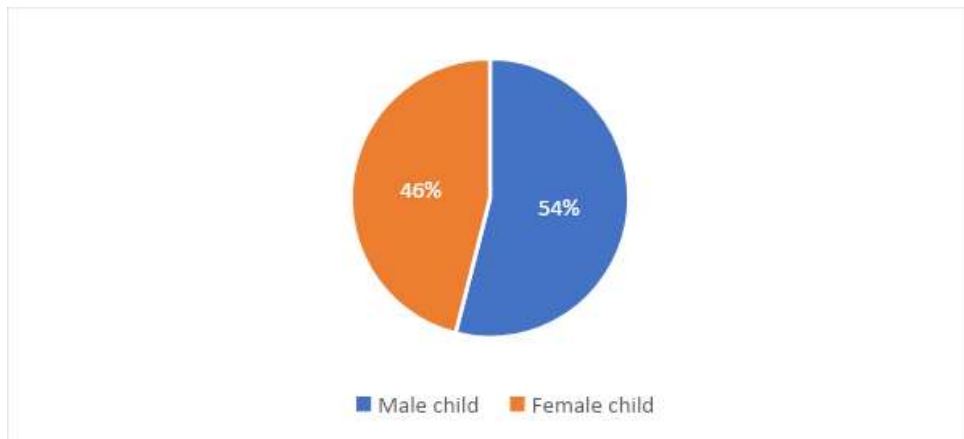


Figure: 1 Gender distribution

Table: 2 Clinical Symptoms for Constipation distribution

Variable	Test	Yes	No	Total
Lumpy	Pre	90	10	100
	Post	28	72	100
Stomach Pain	Pre	57	43	100
	Post	20	80	100
Excessive Stool retention	Pre	49	51	100
	Post	23	77	100
Past History of Medication	Pre	12	88	100
	Post	1	99	100

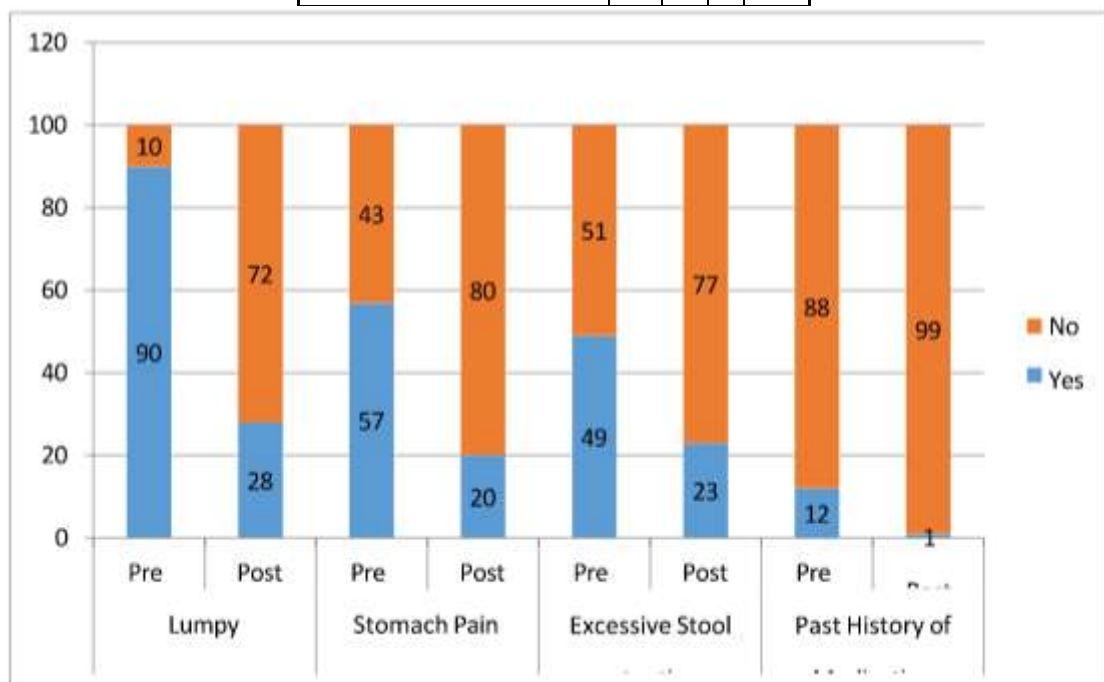


Figure: 2 Clinical Symptoms for Constipation distribution

Table: 3 Using Home Remedies and Diet Habit distribution

Home remedies	Pre	18	82
	Post	3	97
Recurrence after stopping the medicine	Pre	44	56
	Post	5	95
Intake of Vegetables/Fruits	Pre	55	45
	Post	78	22

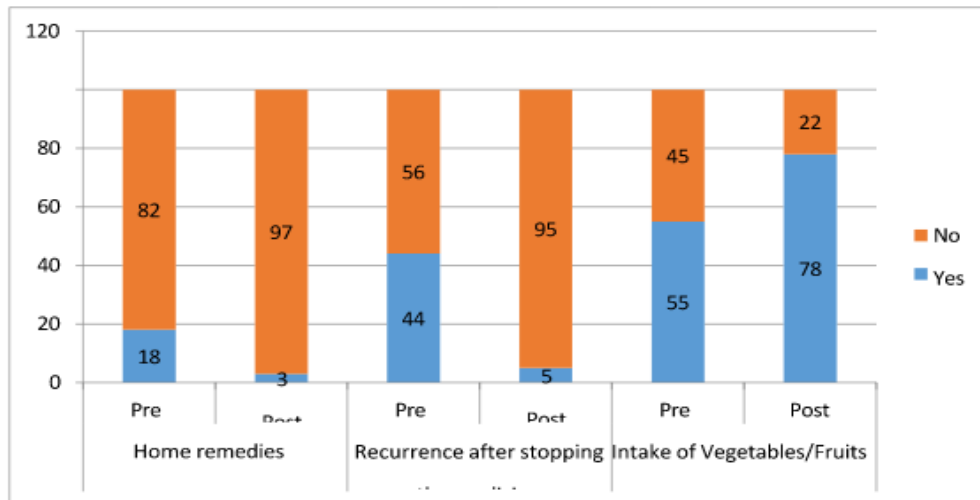


Figure: 3 Using Home Remedies and Diet Habit distribution

Table: 4 Medication for Constipation distribution

Variable	Test	Maantha Ennai	Meni Thylam	Nilavagai Chooranam
Medicine for Constipation	Pre	63	20	17
	Post	63	20	17

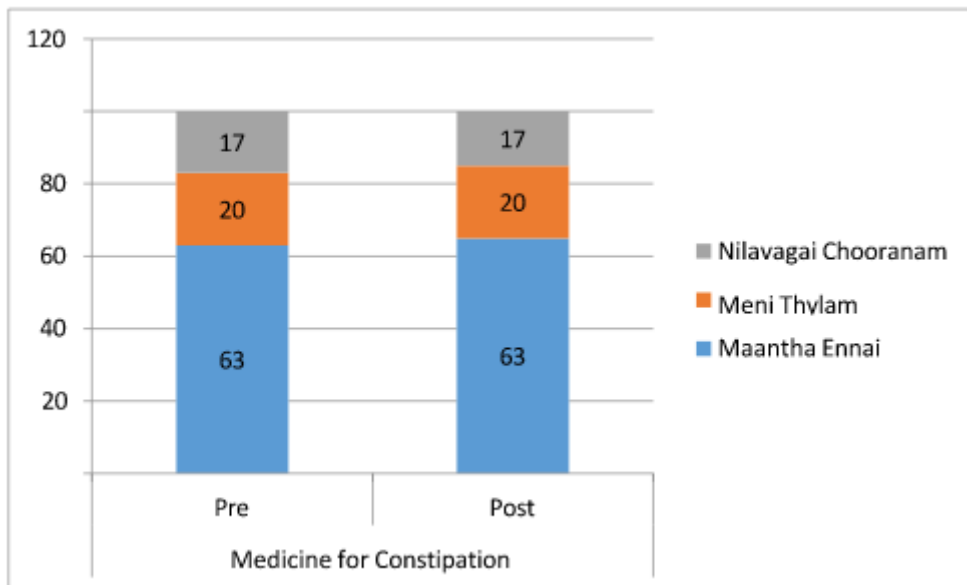


Figure: 4 Medication for Constipation distribution

Table: 5 Defecation Habit distribution

Variable	Test	0 time	1 time	2 times	3 times	7 times
Defecation per week	Pre	3	5	7	13	72
	Post	0	0	1	21	78

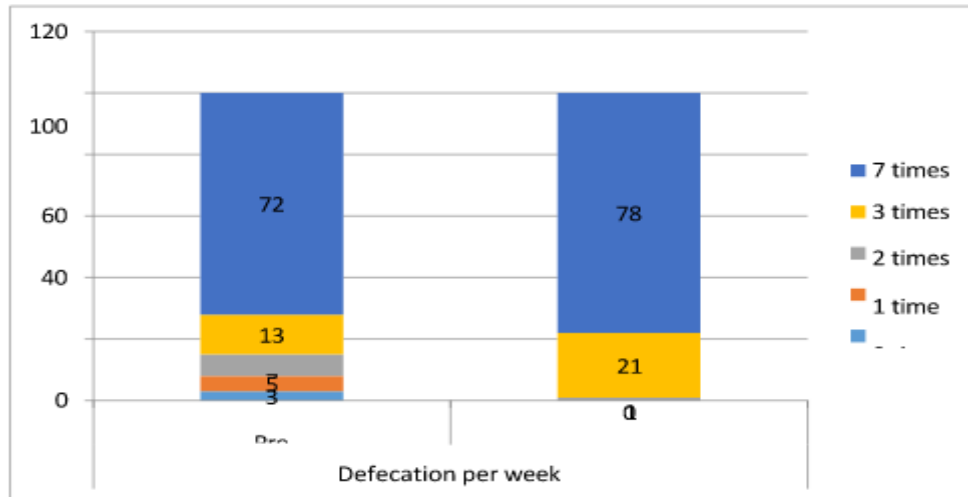


Figure: 5 Defecation Habit distribution

Table: 6 Rome III Criteria Symptoms for Constipation

Variable	Test	0%	10%	25%	50%	100%
Straining While Defecation	Pre	0	20	31	40	9
	Post	64	21	10	5	0
Incomplete evacuation of defecation	Pre	2	44	27	22	5
	Post	60	23	14	3	0

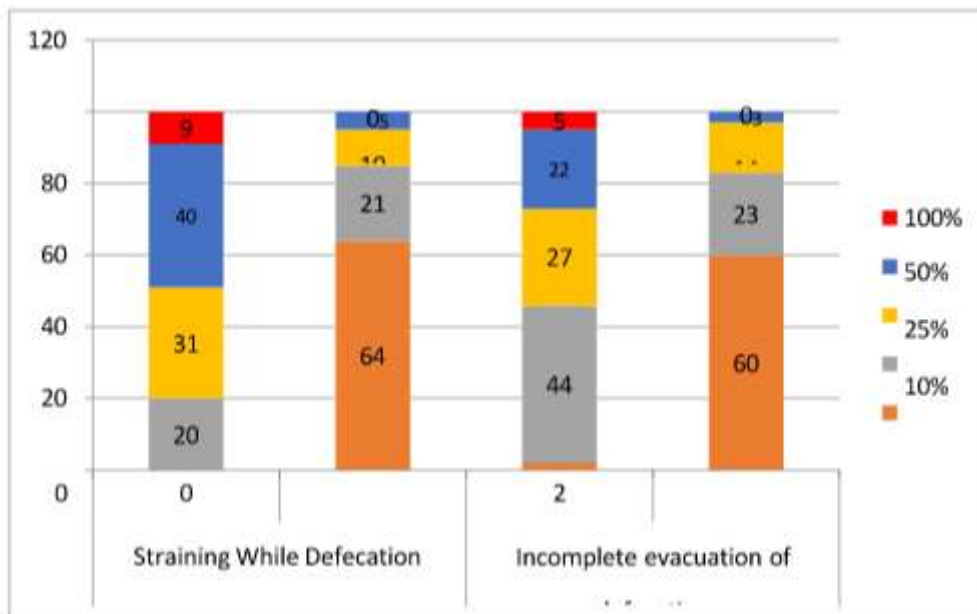


Figure: 6 Rome III Criteria Symptoms for Constipation

Table: 7 Duration of Medication distribution

Variable	Test	1 day	2 days	3 days	1 week	more than week
Duration of Medicine Intake	Pre	3	6	9	81	1
	Post	0	4	8	87	1

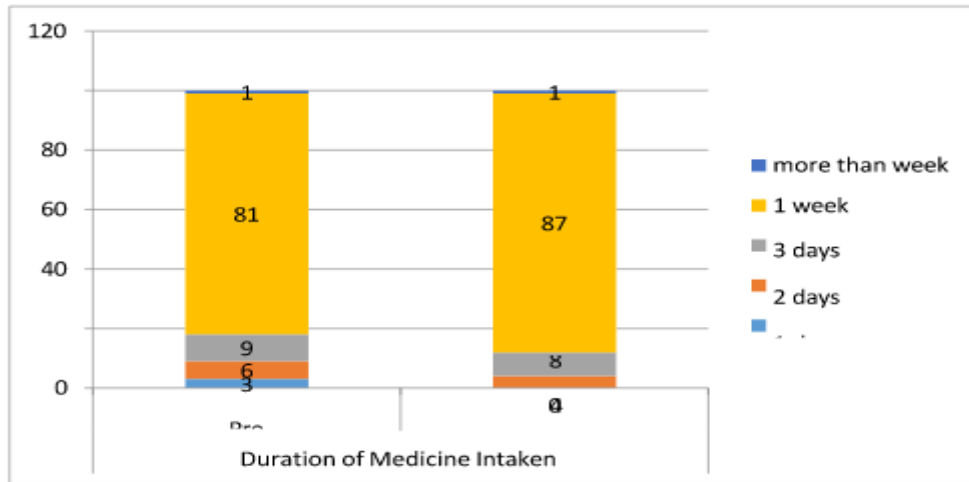


Figure: 7 Duration of Medication distribution

Table: 8 Distribution of Fecal Incontinence

Variable	Test	0 day	1 day	2 days	3 days	4 days
Fecal Incontinence per week	Pre	69	19	5	5	2
	Post	80	19	1	0	0

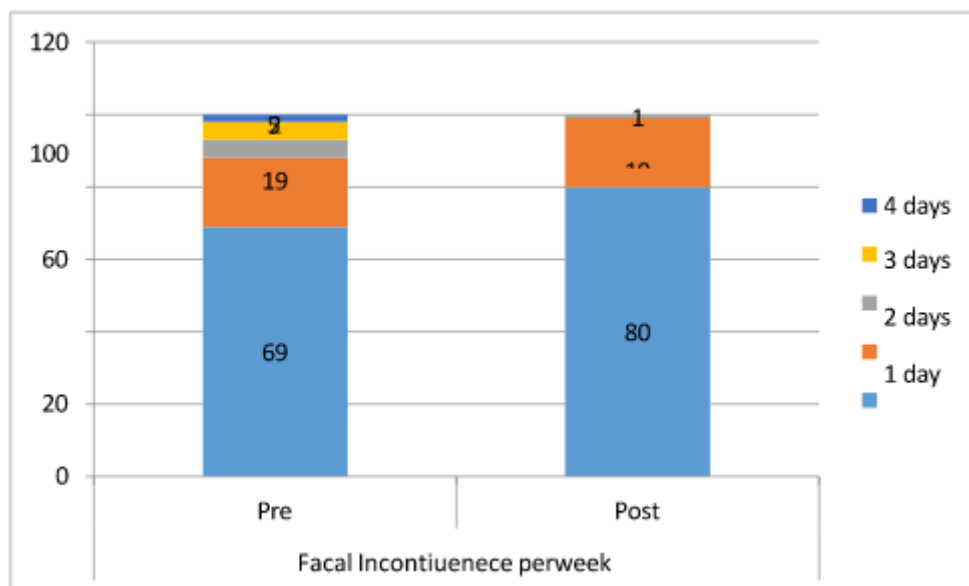


Figure: 8 Fecal Incontinence distribution

IV. DISCUSSION

Constipation is a symptom, not a disease. Different children have different perceptions of symptoms. Physiological constipation is the commonest cause of stool retention in neonates and infants. However, when warning signs like abdominal distension, bilious vomiting, ileus, failure to thrive are present, organic causes must be considered. Some children regard constipation as straining, while for others, it means hard, pellet-like stools or an inability to defecate when desired, or infrequent defecation⁽⁷⁾

The study was aimed at assessing the prevalence and effectiveness of siddha management in children with constipation attending Kuzhandhai Maruthuvam OPD in National Institute of Siddha. I performed an observational type of prospective study at Ayothidoss Pandithar Hospital amongst 100 children by using standard questionnaire. Those questionnaire containing Rome III criteria points of functional constipation were distributed to the parents/guardians and data collected the same. Treatment of constipation includes close medical supervision, dietary instructions, behavioural changes and instructions regarding toilet training.

In this study were screened 150 children with complaints of constipation in the OPD of National Institute of Siddha. Among those 150 children, 100 children were enrolled in the study and observed. Thus the study conducted by the author found out. A total number of 100 children over the age group of 2-12 years were included 46% of female children and 54% of male children. Based on the type of treatment 87% children had taken exclusively siddha medication for constipation and 13% children had taken combined therapy. We observed that 28% of children had defecation episode of ≤ 3 times per week before initiating of siddha medication and 78% of children had defecation episode of $<$ time per week after intake of siddha medication. The diagnosis is often a symptom-based clinical process. Recently developed Rome III diagnostic criteria looks promising, both in clinical and research fields.

Thus the study conducted by the author found out 28% of children had lumpy stool, 20% of children had stomach pain during defecation, 23% of children had excessive stool retention, 1% of children had past history of Medication, 3% of children had home remedies, 36% of children had straining while defecation, 40% of children had incomplete evacuation of defecation and 20% of children had fecal incontinence per week, 78% of

children had intake of vegetables/Fruits after intake of siddha medication.

We observed that 63% of children had Maantha Ennai, 20% of children had Meni Thylam and 17% of children had Nilavagai Chooranam, and then 5% of children had recurrence after stopping the medication.

Children with constipation are more prevalence due to the lack knowledge to the parents such as close supervision, dietary instructions, behavioural changes and instructions regarding toilet training. Nowadays, the parents are failed to teach a proper toilet training to their children due to their life style. It causes most of the children had developed a constipation.

Siddha medicine such us nilavagai chooranam, maantha ennai, meni thylam, siddhathi ennai are more effective for treating constipation. Those medicines are the classical siddha herbal formulation which has more laxative property used for treating constipation. These drugs are given to the children with constipation for the duration of 1 week, has got relief from the constipation and other associated problems.

V. CONCLUSION

Prevalence of constipation in children reported at National Institute of Siddha Kuzhandhai Maruthuvam OPD is 28%. Effectiveness of siddha medicines for the management of constipation is 78%. Educational programs about constipation and associated health consequences should be started early in childhood so as to prevent the increasing prevalence of childhood constipation.

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