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The Role of Matra Basti in Childhood Functional Constipation With Special Reference to Vibandha - A case Report

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Abstract

Functional constipation is a common gastrointestinal complaint in children and significantly affects daily comfort, nutritional status, and quality of life. Ayurveda correlates this condition with *Vibandha*, primarily resulting from *Apana Vayu* dysfunction. Although modern laxatives provide temporary relief, recurrence is frequent. Ayurvedic interventions especially *Matra Basti* are traditionally recommended for Vata-related disorders,yet pediatric clinical evidence remains limited. A 10-year-old male presented with abdominal pain, hard lumpy stools, painful defecation, and absence of bowel movement for four days. According to his mother, symptoms had persisted intermittently for 8–10 days. Based on clinical features, Bristol Stool Scale (Type 1–2), and Rome IV diagnostic criteria, functional constipation (Vibandha) was confirmed. Ayurvedic assessment showed *Apana Vata Dushti* with *Baddha Mala Prakriti*, *Mandagni*, and distended abdomen with left iliac tenderness on examination the child underwent *Shamana* therapy with oral medicines (Syrup Triphala, Sudarshana Churna), followed by seven days of *Matra Basti* using *Ksheerbala Taila*. The dosage and retention time were monitored daily. Post-discharge, *Aampachak Vati*, *Draksharishta*, and dietary/lifestyle advice were continued along with four additional follow-up *Matra Bastis*.

This case demonstrates that *Matra Basti* with *Ksheerbala Taila*, combined with appropriate Ayurvedic oral medications and diet–lifestyle modifications, can be a safe and effective intervention for

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pediatric functional constipation (Vibandha). Early response and sustained follow-up improvement highlight its therapeutic potential. Larger studies are needed to standardize protocols and validate these findings.

Key words : Functional Constipation, Vibandha, Matra Basti, Bristol stool chart, Rome IV criteria.

Functional constipation is one of the commonest gastrointestinal ailments in childhood, described as painful, infrequent, or difficult defecation in the absence of any structural or gastro disease. Clinical features according to the Rome IV criteria include hard stools, straining, painful defecation, and reduced stool frequency, while the Bristol Stool Chart gives an objective assessment of stool consistency[4,8]. In Ayurveda, this condition corresponds to Vibandha, arising mainly from Apana Vayu dysfunction, impaired Agni, and Srotorodha, leading to Baddha Mala and irregular bowel movements described in classical texts.

The global prevalence of functional constipation is highly variable, ranging from 0.7% to 29%, since it depends on the diagnostic criteria, age group, and geographic variation[9]. Urbanization, decreased outdoor activities, low intake of dietary fiber, excessive screen time, and suppression of natural urges play key roles in the increasing incidence among children. Psychosocial factors such as toileting anxiety, school pressure, fear of painful defecation, and stressful home situations also perpetuate chronicity. If left unaddressed, functional constipation may result in abdominal pain, fecal impaction, anorexia, poor concentration, behavioral problems, and distress experienced by both the child and the caregiver.[3].

Ayurveda offers an integrative understanding through Deepana–Pachana, dietary regulation, behavioural guidance, and Basti Chikitsa. Among these, Matra Basti, the mild, oil-based rectal administration, uniquely suits the pediatric population. It softens the stools, lubricates the colon, improves neuromuscular coordination, reduces colonic dryness, and restores the natural downward movement of Apana Vayu. The systemic Vata-pacifying and the locally nourishing actions of Basti make it effective in chronic and recurrent cases without causing irritation or purgative stress[13]. This case report underlines the therapeutic value of such holistic Ayurvedic interventions, notably Matra Basti, in restoring bowel function in children with functional constipation.

Patient information : The patient was a 10-year-old male who presented to the Kaumarabhritya OPD at Khemdas Hospital, Ishwarpura, Vadodara, Gujarat, accompanied by his mother, with complaints of abdominal pain, hard lumpy stools, painful defecation for eight days, and absence of stool for the preceding four days. There was no relevant past medical history, no prior episodes of similar illness, and no history suggestive of endocrine, neurological, or metabolic disorders.

History of Present Illness : The patient was non symptomatic during 10 to 14 days then after 8 days patient suffer from

abdominal pain and hard stools later hard stools with painful defecation was present as informed by mother and so patient take medication from private setup its subside till medication was continued then after stopping medication patient has same complaint with having no stool passed from 4 days so visited OPD for further treatment got admitted to IPD under the Dept. of Kaumarbhritya, in Khemdas Hospital, Parul University, Ishwarpura, Vadodara, Gujrat.

Family History : Nothing specific related to this condition

The child had no significant psycho-social stressors, behavioural issues, or environmental factors contributing to constipation. Daily routine and sleep patterns were normal for age.

Psychosocial information :

No relevant psychosocial or lifestyle factors were identified. The child had a supportive family environment, regular school attendance, and no history of emotional stress, behavioural disturbances, or toileting anxiety.

Red-flag exclusion :

Evaluation revealed no alarm features (neurological, structural, endocrine, or metabolic). Organic causes of constipation were ruled out.

Birth history :

Birth history was normal. The child was born full term via an uncomplicated delivery with no neonatal complications.

Personal History :
Appetite: Poor
Thirst: Normal
Diet: Veg
Micturition: Normal Frequency, Regular
Bowel: Irregular Passage of Hard Stools with Painful Defecation Every Day. No Stools for 4 Days
Sleep: Sound

Dashvidhapariksha :

1. Nadi: Hamsa Gati
2. Mala: Baddha Mala Prakriti
3. Mutra: Prakrit
4. Jihwa: Malavrita
5. Agni: Kshudha mandhya
6. Shabda: Samanya
7. Sparsha: Prakrit
8. Drik: Samanya
9. Akriti: Samanya
10. Bala: Madhyam

General Examination :

General condition: Good
Temp : Afebrile 98.7 F
Pulse rate: 97/min
Resp Rate: 20/min
Pallor: No pallor
Icterus: No icterus
Lymphadenopathy: No lymph inflammation seen
Cyanosis /clubbing: No signs seen
Oedema: No signs of Edema present
Dehydration: No signs seen

Systemic Examination :

GIT Inspection: The umbilicus is distended but

in its normal position, with no scars or discolouration.

Palpation: Superficial and deep palpation – Tenderness is present on the left iliac and Hypogastric regions, with lumps in the left iliac region.

Percussion: Dull sound present.

Auscultation: Bowel sound decreased

Centre of Study : Khemdas Hospital, Ishwarpura ta, Waghodia, Gujarat
All drugs were collected and used from the pharmacy of Parul Institute of Ayurved and Research, Ishawarpura, Waghodia, Vadodara, Gujarat.

Wong Baker Pain Scale : The Wong–Baker FACES Pain Scale is a simple visual tool used to help children express how much pain they feel (Figure 1). It shows a series of six cartoon faces ranging from a smiling face (0 – no pain) to a crying face (10 – worst pain). Children are asked to point to the face that best matches the pain they are experiencing. This scale is especially useful because young children may not be able to describe pain in words, but can easily relate to facial expressions. It is commonly used in hospitals, paediatric clinics, and emergency settings to quickly assess pain and guide treatment[5].

Bristol Stool Chart : The Bristol Stool Chart is a visual guide used to describe stool form and consistency. It has seven types, ranging from hard pellets to watery stool. (Figure 2)

Rome 4 Criteria for functional constipation in children : Used for assessment of functional constipation, which requires the criteria to be full-field as mentioned

Timeline:

The timeline of the case has been elaborated in Table-1*:*

Table-1. Treatment Overall Timeline

Timeline Point	Patient Events	Intervention
Symptom onset (5 days before OPD)	Hard stools, abdominal pain, no stool for 4 days	—
08 Aug 2024 – OPD Visit	Diagnosed with functional constipation (Vibandha)	Planned IPD management
08–14 Aug 2024 – IPD (7 days)	Improvement from Day 4; stools normalised	Matra Basti × 7 days + Shamana medicines
Discharge (14 Aug 2024)	Normal stools; pain resolved	Oral meds + lifestyle advice
Follow-up 20/9/2024 –	Mild difficulty; monitored	Matra Basti × 4 days
IPD (5 days)	Regular stools, no recurrence	Continued advice

Diagnostic criteria :[7]

Rome iv Criteria for Childhood Constipation

To consider functional constipation, an individual must experience at least two or more of the following symptoms, and they should occur during more than 25% of bowel movements:

1. Frequent straining when passing stool
2. Hard or lumpy stools, consistent with types 1 or 2 on the Bristol Stool Chart
3. A persistent feeling of incomplete bowel emptying.
4. A sensation of blockage or obstruction in the rectal area during defecation
5. The need to use manual techniques (such as pressing on the abdomen or using a finger to help pass stool)
6. Having fewer than three bowel movements per week

Assessment Parameters

Clinical features –

1. Having fewer than two or three bowel movements per week
2. Passing stools that are dry, hard, or shaped in small lumps
3. Experiencing pain or difficulty when trying to pass stool
4. Feeling bloated or noticing abdominal swelling
5. Sensing that the bowel isn't fully emptied after a bowel movement
6. Feeling like a blockage in the rectum prevents stool passage.

Differential Diagnosis : Hirschsprung, Metabolic Causes, Cow's Milk Intolerance, Functional Constipation

Diagnosis : Functional Constipation. (Vibandha)

Final diagnosis : Based on Bristol stool chart and Rome IV Criteria and Wong Baker pain scale rating patient's informant, mother has been given a scale of 1&2 in Bristol chart and pain scale of 4, suggestive of severe Constipation (Vibandha).

Samprapti Ghatak of Vibandha :

Dosha: Vata, Kapha

Dushya: Rasa Rakta, Mamsa

Agni: Jatharagni

Strotas: Annavaha, Purishvaha,

Strotodushti: Sanga

Udhbhava Sthana: Pakvashaya

Sanchara Stnana: Purushvaha, Annavaha

Vyakatsthana: Guda, Pakvashaya

Vyadhi Marga: Abhyantara

Treatment :

The child was managed with a combined Ayurvedic approach incorporating Shaman Chikitsa (Table-2) along with a structured Panchakarma (Table 3) regimen to ensure both systemic and local therapeutic effects.

Table-2. Shaman Chikitsa

Sr.no	Medicine	Dose	Duration
1	Syrup Triphala	5ml BD	1 week
2	Sudarshana churna	½ tsp OD	1week

Table-3. Panchakarma Schedule: Shanika Abhyanga then Matra Basti with Ksheerbala taila (Ksheer, Bala, and Tila Taila)

Day	Dose	Duration of holding Matra Basti and Passing stool
Day 1	20 ml once a day	30 min not passed stools(passed after 1 hour of basti)
Day 2	20 ml once a day	20 min 1 episode with hard consistency with pain
Day 3	20 ml once a day	15 min 1 episode with hard consistency with pain
Day 4	20 ml once a day	15 min 2 episode with semisolid stool at an interval of 3hrs)
Day 5	20 mOnce a day	15 min 2 episodes with semisolid stool (at an interval of 7 hours)
Day 6	20 ml once a day	10 min 1 episode with semisolid stool
Day 7	20 ml once a day	10 min 2 episodes with a regular interval of 4 hours

Mode of action of therapeutic interventions:

Triphala, a classical polyherbal formulation composed of Haritaki (Terminalia chebula), Bibhitaki (Terminalia bellirica), and Amalaki (Emblica officinalis) is widely used in Ayurveda for its Mridu Rechana (mild laxative), Deepana, and Pachana properties. It promotes Mala Pravritti (bowel evacuation) by stimulating Apana Vayu, thereby improving intestinal peristalsis and supporting smooth defecation. At the digestive level, Triphala works through Agni Deepana and Ama Pachana, improving metabolism and digestion while reducing the accumulation of *Ama*, In addition, its antioxidant and anti-inflammatory phytoconstituents such as gallic acid, ellagic acid, and chebulinic acid protect the gut mucosa and restore normal colonic tone, thus improving stool consistency and reducing irritation[7]. Clinical studies suggest that Triphala helps in chronic constipation by improving stool frequency and stool form while reducing straining, without causing dependency[10]. Therefore, in this case, Triphala Syrup supported Agni Vardhana and regularised bowel motility while maintaining gut homeostasis. Sudarshana Churna is a broad-spectrum polyherbal preparation containing over 50 herbs, with Swertia chirata as the main ingredient. It is traditionally known for Deepana-Pachana, Ama Nashaka, and Vatanulomana actions. In functional constipation, important pathogenic factors include Mandagni, Ama Sanchaya, and Apana Vayu Avarodha. Sudarshana Churna helps counter these by stimulating digestive fire, improving digestion, and preventing further Ama formation through the breakdown of undigested food remnants. Its Vatanulomana effect supports the natural downward movement of Apana Vayu, facilitating effortless bowel evacuation. Moreover, recent pharmacological findings attribute its action to hepatoprotective and antioxidant effects that improve bile flow and digestion, indirectly supporting bowel regularity[2] When administered along with Triphala Syrup, Sudarshana Churna enhances Agni Deepana and contributes synergistically in establishing regular bowel habits.

Wong Baker Pain Rating Scale

Figure 1 Wong Baker Pain Scale
Source: *adapted from the Wong-Baker FACES Foundation – www. Wong Baker FACES.org*

Figure 2. Bristol Stool Chart
Source: adapted from the Bristol Stool Form Scale, © University of Bristol. Originally published in Lewis & Heaton, 1997.

Figure 3. Administration of matra basti with ksheerbala taila (ksheer, bala, and tiltaila) Source: Original

Matra Basti, a gentle type of Anuvasana Basti, is specifically indicated in Vata-dominant disorders and is highly relevant in pediatric functional constipation. It involves rectal administration of a small and regulated dose of medicated oil, producing both local and systemic benefits. Locally, the lipid base softens stool, lubricates the intestinal mucosa, reduces dryness, and decreases intestinal spasm, thereby easing evacuation. Systemically, the Sneha dravya pacifies Apana Vayu by entering through Guda Marga and reaching Pakvashaya, the main seat of Vata. Modern understanding also supports neuroenteric modulation, where rectal administration stimulates the enteric nervous system and improves the defecation reflex[13]. In this case, Ksheerbala Taila (Bala, Tila Taila, and Ksheera), known for Balya, Vata-Pittahara and Mridu Rechana effects, further supported bowel movement by lubrication, strengthening gut musculature, reducing inflammation, and restoring Purisha Pravritti. Studies show its efficacy in enhancing gut motility and mucosal elasticity in Vibandha[14].

Additionally, Aampachak Vati supported digestion by Deepana-Pachana activity, reducing intraluminal Ama and clearing srotorodha, which helps normalise Apana Vayu flow and improves bowel propulsion.[12] Drakshasava (Draksharishta) acted as a mild nourishing laxative (Mridu Virechaka). Its fermented nature aids delivery of active constituents, improves motility, and provides antioxidant protection to the intestinal mucosa, making it beneficial for long-term bowel regulation[11].

Table-4. Outcome Measures

Outcome	Baseline Findings Domain	During Treatment	1-Month Follow-up (Day 4–7)
Stool Consistency (Bristol Stool Scale)	Type 1–2 (hard, pellet-like stools)	Day 4: Type 3Day 7: Type 4 (normal stool)	Maintained Type 4 daily
Frequency of Defecation	No stool for 4 days	Daily stool by Day 4	Regular daily bowel movements without difficulty
Abdominal Pain Wong Baker Pain Scale)	6/10	Day 4: 4/10Day 7: 0/10	No abdominal pain
Straining During Defecation	Severe straining with pain	Significantly reduced by Day 4. Absent by Day 7	No straining; effortless defecation
Abdominal Examination	Mild distension; left iliac tenderness	Distension resolved; no tenderness by Day 7	Abdomen soft, non-tender; no distension
Appetite & Activity Level	Low appetite; decreased activity	Appetite improved; active and playful	Normal appetite and energy levels
Adverse Events	None present at baseline	No adverse events observed during the 7-day IPD stay	No adverse events during the follow-up period
Overall Functional Outcome	Significant discomfort and constipation severity	Marked improvement with normal stool pattern	Sustained symptom-free status; no recurrence of constipation

Follow up and Outcome :

One month after discharge, the child was reassessed to evaluate the sustainability of treatment benefits and overall gut function. The child continued to show steady improvement with no recurrence of constipation. Daily bowel movements were reported, and stool consistency remained Bristol Stool Type 4, indicating normal, well-formed stools (Table 4). The mother confirmed smooth passage of stool without straining, pain, or withholding behaviour. During follow-up, Matra Basti was administered for four additional days, which further supported bowel regularity and stabilisation of Apana Vayu (Figure 3). Each session was well tolerated, with a retention time of 10–15 minutes, and no adverse effects were noted. The Wong–Baker Pain Score remained 0, confirming complete relief from abdominal discomfort. Clinical examination showed no tenderness or distension with

normal bowel sounds. Appetite and activity were normal, and adherence to hydration, diet, and lifestyle measures supported sustained remission.

1. There were no significant side effects during treatment, and the course of treatment was successful.
2. The patient started having regular, everyday bowel movements.
3. There was considerably less pain during defecation.
4. The patient no longer faced the obstruction that made them strain to defecate. Additionally, the consistency of the stool had shifted from solid to semi-solid.

Childhood functional constipation is a common but challenging condition that significantly affects a child's physical comfort and psychological well-being. As described in the Rome IV criteria, it is a chronic and multifactorial disorder, often linked with impaired gut motility, dietary issues, and behavioural factors[5]. Conventional management mainly relies on osmotic or stimulant laxatives, which may provide temporary relief, but discontinuation can lead to recurrence, and prolonged use may be associated with dependency or electrolyte imbalance[16]. From the Ayurvedic perspective, functional constipation closely resembles Vibandha, primarily caused by Apana Vayu Dushti, Mandagni, and improper dietary–lifestyle habits[1]. Vata aggravation leads to features such as Purisha Nigraha, Grathitha Mala, and Pakvashaya Shoola, reflecting disturbed bowel regulation. In such Vata-dominant disorders, Basti Chikitsa is considered highly effective and is traditionally described as Ardha Chikitsa due to its central role in pacifying Vata and cleansing the Pakvashaya[13].

In the present case, initiation of Matra Basti with Ksheerbala Taila on Day 4 produced marked clinical improvement. Ksheerbala Taila—prepared using Ksheera (milk), Bala (Sida cordifolia), and Tila Taila (sesame oil) is described as Vata-Pittahara, Balya, and Mridu Rechana, offering gentle lubrication and strengthening of the intestinal mucosa[13]. The lipid-based medium also facilitates rectal absorption and supports normal evacuation.

Along with Basti, Shamana Aushadhis such as Triphala Syrup, Sudarshana Churna, Draksharishta, and Aampachak Vati supported Agni Deepana and Ama Pachana, contributing to overall gut restoration. Stool consistency improved from Bristol Type 1–2 to Type 4, and pain/straining reduced to zero by Day 7, indicating effective Vata Shamana and bowel normalisation. This case supports the potential role of Matra Basti in pediatric constipation, though larger trials are needed to standardise protocols and confirm long-term outcomes.

This case highlights the therapeutic potential of *Matra Basti* with *Ksheerbala Taila* as an effective, safe, and non-habit-forming approach for managing childhood functional constipation (*Vibandha*). The integration of internal medications (*Triphala Syrup*, *Sudarshana Churna*, *Draksharishta*, and *Aampachak Vati*) with rectal therapy and lifestyle modifications led to sustained symptom remission and improved bowel regularity.

Together, *Triphala* and *Sudarshana Churna* act as internal *Shamana Chikitsa* agents that enhance *Agni* and digest *Ama*, while *Matra Basti* with *Ksheerbala Taila* provides local and systemic *Vata Shamana* and

lubrication. This dual-approach internal *Deepana-Pachana* with external *Sneha Basti*—addresses both *Samprapti Vighatana* (breaking the pathogenesis) and *Vata Anulomana* (restoring downward movement).

The result is a comprehensive normalisation of bowel function, demonstrated by improved stool consistency (Bristol Type 4), regular frequency, and pain relief by Day 4 in the present case.

By addressing the root cause, *Apana Vayu Dushti,* rather than merely symptomatic relief, Ayurvedic management demonstrates a holistic pathway to functional normalisation of bowel movements. This case underscores the need for larger clinical studies to validate the efficacy and safety of *Matra Basti* in pediatric practice, contributing to the development of integrative treatment protocols in *Kaumarbhritya*.

Declaration of Patient :

The authors confirm that written informed consent was obtained from the child's parent/guardian on August 8, 2024, for the evaluation and Ayurvedic management of the condition. The parent/guardian also provided written consent for the case details, clinical information, and treatment outcomes to be used for academic reporting and publication purposes. All identifying information has been removed to ensure confidentiality.

Conflict of Interest :

The authors declare that there is no conflict of interest.

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