

A CASE STUDY ON FUNCTIONAL CONSTIPATION IN CHILDREN

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ABSTRACT

Vibandha (Constipation) is the most typical digestive system ailment brought on by an unhealthy lifestyle. However, *Vibandha* (constipation), which is caused by a vata-dominant constitution, is mentioned under the terms *Apana-vaigunya*, *Purisavaha- Srotodusti*, and *Krura- Koshtha* in the Ayurvedic texts. Consequently, every factor causes *Purishvaha-srotodushti* for *Vibandha*. In modern medical science, constipation is a condition in which a person has unpleasant or infrequent bowel motions, and it can be used to understand this disease. There are many reasons that contribute to this, but three main causes—dietary, mental, and lifestyle issues are responsible for it. Understanding the pathophysiology of *Vibandha* (constipation) and how to treat it with *Trivrita Avaleha* Syrup, Dietary and lifestyle modification are the goals of the current study.

KEYWORDS: *Purisavaha Srotodusti*, *Apanavata vaigunya*, *Krura Koshtha*, *Vibandha*, constipation.

INTRODUCTION

Vibandha (constipation) is one of the common problems in children of all ages. The term *Vibandha* is not found in *Ayurvedic* literature but it is mentioned as *baddha Purusha*, *grathita purisha*, *mala Vibandha*, *Vitta Sanga*, and, *Vitta graha* in various

pathological conditions. *Vibandha* occurs as a result of *Apana Vayuvaigunya*^[1] (impaired function). The *Rukshna Guna* of *Apana Vayu* produces increased water absorption, which results in hard, lumpy stools. Therefore, according to Ayurveda, constipation is an issue brought on by the *Vata* Dosha's dominance. *Vibandha* is one of the features of *Purishvaha shrotodusti*.^[2]

Constipation is described as a *Nidana* (cause), *Lakshana* (symptom), and *Upadrava* (complication) of a number of illnesses. In *Udavarta*, it may be regarded as a *Lakshana* (Retention of faeces, flatus, and urine) caused by the *Pratiloma Gati* (reverse flow) of *Apana Vayu* including *Anaha* (Obstruction), *Adhmana* (Distension), and *Malaavastambha*^[3] (Hardness of stools).

Constipation is an acute or chronic condition characterized by the infrequent passage of stool associated with pain and difficulty or delays in defecation, complaints of straining, passing hard stool, a sensation of incomplete evacuation and either perianal or abdominal discomfort.^[4]

Mainly the problem develops from withholding behaviour, which causes retained stools and evacuation issues when defecation is avoided due to fear of discomfort or due to social reasons. Stool retention, loss of rectal feeling, faecal incontinence, abdominal distension, and painful defecation begin to slide without control. Faecal incontinence affects between 75 and 90 per cent of children who have Functional constipation.

Common features of constipation in children are abdominal pain, bloating, straining during the passage of hard stool, headache, malaise, and feeling of incomplete evacuation and blood on the surface of the hard stool. Although constipation in children can be uncomfortable, usually it is not serious. If constipation becomes chronic, serious complications occur like anal fissures, haemorrhoids, fistula, rectal prolapses, etc.

***Vibandha* is also known by different names, like-**

Purishabadhata, Vitasanga, Vitagraha, Badhavarchas, Malabadhata, Visthabadhata, Stabdhapurishtha, Varchovibandha, Varchashosa, Varchanigraha, and Gadhavarchas Purishasanga.

Different Acharya describe *Vibandha* as symptoms of Different diseases

1. In symptoms of *Purishavegavrodhjanya vata*,

पकाशयशिरःशूलं वातवर्चोऽप्रवर्तनम् ।द्य
पिण्डिकोद्वेष्टनाध्मानं पुरीषे स्याद्विधारित^[5]॥ (च.सू.7/8)

According to *Acharya Charaka*, intestinal colic, headaches, flatus and faeces retention, calf cramps, and abdominal distension are side effects of suppressing the need to urinate.

2. In symptoms of *Apanavayu avarodhjanya*

संगोविष्णुमूत्रवातानामाध्मानं वेदना कल्मः द्य
जठरे वातजाश्चान्ये रोगाः स्युर्वातनिग्रहात्^[6]॥ (च.सू.7/12)

Suppressing the urge for flatus leads to the retention of faeces, urine, and flatus, as well as abdominal distension, pain, fatigue, and other *Vata*-related diseases.

3. In symptoms of *Koshthashrit Vayu*

तत्र कोष्ठाश्रिते दुष्टे निग्रहो मूत्रवर्चसोः द्य
ब्रघ्नहृद्रोगगुल्मार्शः पार्श्वशूलं च मारुते^[7]॥ (च.चि./28/24)

When the *Vayu* in the bowels is vitiated, it results in the retention of urine and faeces, as well as *Braghna*, hernias, heart diseases, *gulmas*, piles, and side pain.

4. In symptoms of *Gudgata Vayu*

ग्रहो विष्णुमूत्रवातानाम् शुलाध्मानाश्मशर्कराः।
जन्धोरुत्रिकपात्पृष्ठरोगशोषौ गुदिस्थिते^[8]॥ (च.चि./28/26)

When vitiated *Vata* is inserted in the anus, there is the retention of faeces, urine, flatus, colic, tympanitis, calculus, gravels, discomfort, and emaciation in the legs, thighs, sacral region, feet, and back.

5. In symptoms of *Vidavrit Vata*

वर्चसोऽतिविबन्धोऽधः स्वे स्थाने परिकृन्तति द्य ।
व्रजत्याशु जरां स्नेहो भुक्ते चानह्यते नरः ॥
चिरात् पीडितमन्नेन दुःखं शुष्कं शकृत् सृजेत् द्य । ।
श्रोणीवङ्क्षणपृष्ठेषु रुग्विलोमश्च मारुतः ।।द्य।द्य।
अस्वस्थं हृदयं चैव वर्चसा स्वावृतेऽनिले^[9] द्य ।।(च./चि.28/70–71)

When faeces is coated with the *Vayu*, the patient experiences excessive constipation, cutting pain in the lower anorectum, rapid digestion of unctuous substances, hardness in the bowels

after meals, discomfort in the hip, groyne, and back, *Vayu* movement in the opposite direction, and heart disease.

6. In symptoms of *Pakvashayagat Vata*

पक्वाशयस्थोऽन्त्रकूजं शूलाटोपौ करोति च ॥

—च्छमूत्रपुरीषत्वमानाहं त्रिकवेदनाम्^[10] ।(च.चि./28/28)

When *Vayu* is located in *Pakvāśaya*, it produces colic, meteorism, trouble passing urine and stool, hardness in the bowels, and pain in the sacral region.

7. In symptoms of *Vataj Gulma*

यः स्थानसंस्थानरुजां विकल्प विडवातस गलवशोषम्^[11] द्य । । (च.चि.5/10)

The gulma produces obstruction in faeces and flatus, dryness in the mouth and throat, and a wide range of locations, symptoms, and pain.

8. In symptoms of *Vataj Pandu*

अङ्गमर्द रुजं तोदं कम्पं पार्श्वशिरोरुजम् ।द्य ।

वर्चः शोषास्यवैरस्यशोफानाहबलक्षयान् ॥

आहारैरुपचारैश्च वातलैः कुपितोऽनिलः ।द्य ।

जनयेत्कृष्णपाण्डुत्वं तथा रुक्षारुणाङ्गताम् ॥

अङ्गमर्द रुजं तोदं कम्पं पार्श्वशिरोरुजम्^[12] ।(च.चि./16/17–18)

Vata is vitiated by *vata*-aggravating diet and other regimens, which results in a blackish paleness, roughness, and reddishness in the body, as well as body ache, pain, piercing pain, trembling, pain in the sides and head, dryness of stool, distaste in the mouth, oedema, hardness in the bowels, and debility.

9. In symptoms of *Vataavidhi*

तत्र वातवृद्धौ वाक्पारुष्यं काश्यं काश्यम् गात्रस्फुरणम् उष्णकामिता निद्रानाशोऽल्पबलत्वम् गाढवर्चस्त्वं च^[13] । (सू.सू. 15/18)

When *Vayu* increases, hoarseness in speech, weakness and blackness of the body, pulsation in the organs, desire for hot food and *vihar*, sleeplessness, lack of strength, and thickening of the stool, these symptoms arise.

10. In symptoms of *Sannirudhguda*

मार्गस्य सौक्ष्म्यात् कृच्छ्रेण पुरीषं तस्य गच्छति।^[13] (सू. नि. 11/58)

वेगसन्धारणाद्वायुर्विहतो गुदमाश्रितःद्य ।द्य । ।

निरुणद्धि महत्स्रोतः सूक्ष्मद्वारं करोति च द्य ।

।मार्गस्य सौक्ष्म्यात् कृच्छ्रेण पुरीषं तस्य गच्छति^[14] द्य । द्य । ।(सू. नि. 13/58)

By stopping the flow of *Apan Vata* and excreta, the vitiated *Vata* enters the anus, obstructs the great source, and narrows the passage below it (the anus).

11. In symptoms of *Badhgudodar*

निरुध्यते चास्य गुदेपुरीषम् निरेती कृच्छादपि चाल्पमल्पम्^[15] द्य (सू.नि.7/18)

यस्यान्त्रमन्त्रैरुपलेपिभिर्वा बालाश्मभिर्वा सहितैः पृथग् वा । सञ्चीयते तत्र मलः सदोषः क्रमेण नाड्यामिव सङ्करो हि ।।

निरुध्यते चास्य गुदे पुरीषं निरेति कृच्छादपि चाल्पमल्पम् । हन्नाभिमध्ये परिवृद्धिमेति तच्चोदरं विट्समगन्धिकं च ।।

प्रच्छर्दयन् बद्धगुदी विभाव्यस्ततः परिस्त्राव्युदरं निबोध^[16] ।। (सू.नि.7/17-19)

A child whose bowels have been filled with sticky food grains, hair, or small stones (stones and pebbles), and as garbage (hybrid) gradually accumulates in the drain, in the same way as *Vatadi doshas* in that intestine. The stool keeps on accumulating. In this way, the faeces of that person get obstructed in the anus and come out in small amounts with great difficulty, and the abdomen (intestines) swells between the heart and the navel, and there is foul-smelling vomit like diarrhoea. With these symptoms, the person is suffering from colic. should be diagnosed by *badhgud*.

12. In symptoms of *Udararoga*

शोफः सदनं अंगानाम् संगो वातपुरीषयोः द्य

दाहस्तृष्णा च सर्वेषु जठरेषु भवन्ति हि^[17] ॥ (सू.नि.7/25)

Heaviness, inability to walk, weakness, dyspepsia, swelling, loss of organs, downfall, and burning sensations in stool and thirst are common symptoms in all types of abdominal diseases.

13. In *Nanatmaj vikar of Vata*

शोफः स्तम्भः श्रोणिभेदो वंक्षणाहविडगदौ^[18] । (का.सू. 27/22)

Acharya Kashyap counts *Vibandha* in 80 types of *Vata vyadhi* and calls it *Vidagada*.

AIM AND OBJECTIVE

To study several facets of *Vibandha's* explanation and the impact of *Trivrit Avaleha* Syrup on it in the early childhood years.

Chief Complaints

1. *VataVarcha apravrutti* (Obstruction to voiding stool)
2. *Grathita, mala pravrutti* (Scybalous stool)
3. *Kruchchhrena Shushk Chiraat pravrutthi* (Voiding of hard stools with straining, withholding)
4. *Sashoola mala pravarthana* (Voiding of stools with pain)
5. *Alpalam mala pravarthana* (Voiding of a small quantity of stool)
6. History of large-diameter stool which may obstruct toilet

On Examination

- 1) Temperature - Afebrile
- 2) Pulse rate - 88/min
- 3) B.P. - 110/70mm of Hg
- 4) Icterus - No
- 5) Cyanosis - No
- 6) Pallor - Mild
- 7) Oedema - Absent
- 8) Clubbing - Absent
- 9) Appetite - Poor
- 10) Bowel Habit - Irregular, Passage of hard stools once in 3 to 4 days associated with pain.
- 11) Micturition - 5-6 times/day
- 12) Sleep - Sound

Ashtavidh Parikshan

1. *Nadi - Hansgati*
2. *Mala - Malabaddhata*
3. *Mutra - Prakrit*
4. *Jivha - Pale, Atrophydes*
5. *Shabda - Samyak*
6. *Sparsha - Sheet, Ruksh*
7. *Drik - Samyak*
8. *Akriti - Saumya*

P/A Examination (G.I. System)

1. Inspection – No distension, umbilicus in normal position, no scars and no discoloration.

2. Palpation –No tenderness.
3. Percussion – Normal tympanic note around the umbilicus.
4. Auscultation –Normal bowel sounds.

Per Rectal Examination - Presence of large faecal mass in the rectum, No bleeding.

MATERIALS AND METHODS

An 8-year female patient was taken from OPD of P.G. Department of *Kaumarbhritya*, the Ayurveda Hospital attached to the Post Graduate Institute of *Ayurveda*, Dr Sarvepally Radhakrishanan Rajasthan Ayurved University, Jodhpur, having symptoms of functional constipation and no other motility related organic cause for it. So Hirschsprung's disease, Congenital anomalies, and Neurological causes were excluded. The duration of study is 15 days.

Follow up - 8th, 16th days

Method

त्रिवृतकल्ककषायाभ्यां साधितः ससितो हिमः ।

मधुत्रिजातसंयुक्तो लेहो हृदयं विरेचनम्^[19] ।। (अ.इ.कल्प.2/9)

An Essential Ayurvedic herb, *Trivrit* (*Operculina turpethum*), is used to cure illnesses that are *Kapha* and *Pitta* dominant. It is a highly significant herb used in *Panchakarma* treatment known as *Virechana* - laxatives treatment in addition to being effective as a medicinal herb.

त्रिवृत् सुखविरेचनानाम्^[20], ।

ज्वरपित्तपञ्च उवदहं पञ्चसम संगंजपअमेण

विरेचने त्रिवृन्मूलं श्वेष्टमाहुर्मनीषिणः^[21]. ।

For purgation, *Trivrita* root is regarded as the best one by physicians.

सुकुमारे शिशौ वृद्धे मृदुकोष्ठे च तच्छुभम्^[22] ।

Reddish *Trivrita* is more significant and beneficial for those with sensitive skin, young children, elderly patients, and soft bowels.

कषाया मथुरा रुक्षा विपाके कटुका च सा ।

कफपित्तप्रशमनी रौक्ष्याच्यानिलकोपनी दृढ

सेदानीमौषधैर्युक्ता वातपित्तकफापहः ।

कल्पवैशेष्यमासाद्य सर्वरोगहरा भवेत्^[23] ।।

It is astringent, sweet, harsh, and katu in vipika in action; it balances kapha and pitta but vitiates *vāta* because of its roughness. However, it becomes an alleviator of all ailments when paired with medications that reduce *vāta*, *pitta*, and *kapha* and take on specific pharmacological forms.

Preparation and Administration of drug

At first *Trivrit* root bark crude herb was cleaned and dried. After that *Trivrita* root bark were coarsely powdered by using the grinding mill. The Coarse powder of *Trivrita* root bark was suspended into 8 times of water at room temperature for one night and the next day mildly heated (*Mandagni*) to reduce it up to 1/8 and the decoction (*Kwath*) was prepared. After it got filtered. Sugar candy powder (Sita 75% of *Kwath*) was added and mixed well during the boiling process, After that 0.3% sodium benzoate as a preservative add to the decoction. After cooling this the *Tejpatra*, *Twak*, *Ela* powder (*prakshep dravya*) and *Madhu* were added to it, thus Syrup was prepared. At last, stored at room temperature and then packed in airtight bottles of 50 and 100 ml.

Drug dose – 10 ml twice a day after meal

Anupana – Luke warm water

Ahara – Advice to follow the diet chart

Vihar – Advice to follow the lifestyle chart, and *yogasana* – *Vajrasana*, *Paschimottanasana*, *Pavanamuktasana*, *Shalabhasana*, *Balasana*

OBSERVATIONS

RESULTS

On follow up at 8th day

The child, who had a habit of passing stool once every 3rd–4th days, started passing it every second day. Pain during defecation was reduced by 50%. The child has started passing more semi-solid stool instead of a small quantity of hard stool. Times spent in the toilet reduced from 20 minutes to 15 minutes; pain in the abdomen reduced by 50%; no need for any assistance now.

On follow-up at 16th day

The child, who had a habit of passing a stool once every 3rd–4th day, started passing it every day. The pain during defecation was completely reduced. The child has started passing more semi-solid stool instead of a small quantity of hard stool. Times spent in the toilet were

reduced from 15 minutes to 10 minutes, pain in the abdomen was completely cured, and no assistance was required now.

DISCUSSION

In the present case of *Vibandha*, *Prakopa* of *Apana Vayu* impairs its ability to perform *Shakrit nishkramana*. Based on the *Lakshanas*, it was concluded that there is *Apana Vayu Vaigunya*. Hence, the basic line of management was *Sukhvirechan*. *Trivrita* is given as the best choice drug for *Sukhvirechan* in children by *Acharya Charak*, and *Trivrita Avaleha Syrup* is the best formulation for constipation by *Acharya Vagbhata*. A proper dietary plan, *yogasana*, toilet training, and adequate intake of water were also advised. A significant reduction in complaints was observed.

CONCLUSION

Constipation is one of the main health issues facing children today. The laxative properties of *Trivrita* are well documented. It removes undigested food from the large intestine due to its laxative activity without irritating the intestines. As a result, *Acharya Charaka* has called it the first priority in the use of mild laxative. According to Ayurveda, laxative medications contain the essential elements *Prithvi* (solid) and *Aap* (liquid), which are excellent for treating exacerbated *Vata*. The *Operculina Turpathum* Rootbark used in the current study had minor laxative effects and increased intestinal motility and fluid retention. Constipation and its associated symptoms, including *Adhaman*, *Udgarbahulya*, *Udarshool*, *Aatop*, *Aanah*, and *Malsang*, were significantly relieved by this study.

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