



# **A CONCEPTUAL STUDY ON ROLE OF *BASTI* IN FUNCTIONAL CONSTIPATORY BOWEL HABITS IN DRUG DEPENDENT GERIATRIC**

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## **ABSTRACT;**

Constipation is condition characterized by infrequent bowel movements resulting in the passage of small amount of hard and dry stool. The prevalence of constipation is more common in a geriatric age group where symptoms occur in up to 50% among adults and 40% of seniors living in community those who mainly dependent on the medication<sup>1</sup>. Primary constipation is also referred to as a functional constipation and secondary constipation is associated as a symptom of chronic disease processes medication use and psychological issues. where a laxative may play a role in management but in a long run of use will cause many harmful side effects in the old age group. In Ayurveda through *basti* line of management in geriatric patients helps in giving additional benefits with improvement in health condition and reliving the constipatory bowel habit.

**KEY WORDS:** Constipation, medication use, *basti*, geriatric.

## **INTRODUCTION;**

As per classics the main constituents of the body are *dosha*, *dathu* and *mala*. where the consumed food will be converted into *sara bhaga* and *kitta bhaga*. The *kitta bhagas* are *purusha*, *mutra* and *sweda*. The proper formation and excretion indicates the good health. The constipation is an acute or a chronic characterized by dry and hard infrequent stools that are painful or difficulty to pass. It is due to multifactorial cause such as insufficient dietary roughage. Lack of exercise suppression of defecatory urges drug use etc., many of the geriatric patients will be dependent on medication use such as NSAID'S, Pain relivers, Anti histamines, Iron supplements, Hypertensive and diabetic mediation<sup>2</sup>. This medication having a side effect one of them is constipation. In a long run these medications causes disturbance in the bowel habits that indeed causes difficulty in passing and patients will depend on oral laxatives and enema.

The “Rome III criteria & Bristol stool scale” are widely accepted format for diagnosis of Functional constipation<sup>3</sup>. Treatment of constipation is most often empirical and continues to evolve and remains challenging. Though the conventional treatment is well established in a recent survey of over 5000 patients who were taking medications for constipation, nearly one half of patients were unsatisfied with current modern therapy. Stimulant, osmotic and saline laxatives of chemical origin are known to cause abdominal cramping, hypokalaemia, flatulence, abdominal distension, and alteration in electrolyte transportation which limit the long-term use of these drugs.

The management of constipation in contemporary system is mainly through a symptomatic line by using purgatives, stool softeners, osmotic purgatives etc, clinically many of the patients will become dependent on such therapy. To prevent such dependency and side effects Ayurveda can play an important role in the management of constipation and adding a additional health benefits.

Though our classical text had mentioned about *Asthapana bastis* and *matra basti*. In day today practice in the management of constipation its usage is least or clinicians mainly depend on the laxatives and purgatives.

## **CONSTIPATION**

Constipation<sup>4</sup> (also known as costiveness or dysphasia) refers to bowel movements that are infrequent or hard to pass. Constipation is a common cause of painful defecation.

It is defined (ROME II criteria & Bristol stool scale) as the presence of any two or more of the following symptoms for at least 3 months:

1. Infrequent passage of stool (3 bowel movements/week)
2. Hard stools
3. Straining at stool
4. Incomplete evacuation. In India, the normal stool frequency is 1 per day in contrast to 3 per week.

## ***Vibandha***

*Vibandha*, *Malasanga*, *vit-sanga*, *mala bandhana*, *mala avarodha* are the synonyms word used in ayurvedic texts at different places. The word are self-explanatory and indicating the sluggishness of the bowel to evacuate the accumulated mala in them. This symptom is considered mainly due to abnormality of *Apana vata*<sup>5</sup>.

## **Causes of *Vibandha* (Constipation)**

A frequent functional cause of constipation is irregular bowel habits that have developed through a lifetime of inhibition of the normal defecation reflex<sup>6</sup>. According to Acharya Charaka, consumption of *vatakara ahara* and *vihara*. If one holds the urge for defecation, it causes colic pain, headache, retention of faeces and flatus, cramps in the calf muscles and distension of abdomen.

## MEDICATION THAT CAUSES CONSTIPATION;<sup>2</sup>

DRUGS	EXAMPLES
Analgesic drugs	NSAID's, opioids (25% to 40% in noncancer patients and almost 90% in cancer patients).
Anticholinergic	Antipsychotic drugs, benztropine, oxybutynin.
Anti-Parkinson	Amantadine, bromocriptine, pramipexole.
Anticonvulsant	Gabapentin, phenytoin, pregabalin.
Antidepressant	Tricyclicene, antidepressants, paroxetine.
Antidiarrheal	Diphenoxylate, loperamide.
Antiemetic drugs	Ondansetron, prochlorperazine, promethazine
Antihistamine	Diphenhydramine, hydroxyzine
Antihypertensive	Alpha-adrenergic agonists (e.g., clonidine), Beta-blockers, calcium channel blockers(verapamil), diuretics
Antispasmodic	Dicyclomine
Cation agents	aluminium, bismuth, barium, calcium, iron
Chemotherapy	Vincristine, cyclophosphamide
Resins	Cholestyramine, sodium polystyrene sulfonate

### Diagnostic Criteria Rome II criteria for Constipation<sup>7</sup>

Two or more of the following for at least 12 weeks (not necessarily consecutive) in the preceding 12 months:

- 1) Straining during >25% of bowel movements
- 2) Lumpy or hard stools for >25% of bowel movements
- 3) Sensation of incomplete evacuation for >25% of bowel movements
- 4) Sensation of Ano-rectal blockage for >25% of bowel movements
- 5) Manual maneuvers to facilitate >25% of bowel movements (e.g., digital evacuation or support of the pelvic floor)
- 6) <3 Bowel movement per week
- 7) Loose stools not present, and insufficient criteria for irritable syndrome.

### Bristol stool chart<sup>8</sup>

Bristol stool chart	
	Type 1 Separate hard lumps, like nuts (hard to pass)
	Type 2 Sausage-shaped, but lumpy
	Type 3 Sausage-shaped, but with cracks on surface
	Type 4 Sausage or snake like, smooth and soft
	Type 5 Soft blobs with clear-cut edges (easy to pass)
	Type 6 Fluffy pieces with ragged edges, mushy
	Type 7 Watery, no solid pieces (entirely liquid)

**Investigation** Digital rectal examination, evacuating proctoscopy and sigmoidoscopy are useful investigations to know the exact cause of constipation. Blood Biochemistry e.g. serum calcium and thyroid function tests. Colonic transit studies by radio-opaque markers help to distinguish slow transit constipation from normal transit constipation. If symptoms persist, then barium enema and colonoscopy should be carried out to look for the structural disease.

### Treatment as per modern

The basic aim of treatment is to find out the cause and treat it.

**1. Dietary adjustment:** Fibre supplementation is the first line therapy for normal or slow transit constipation. Wheat bran is the most effective supplement followed by vegetables, fruits, mucilage, corn and cellulose. This adjustment is suitable for simple constipation and not for obstructive constipation and faecal impaction.

**2. Behavioural therapy:** Habit training is important to achieve regular defecation. The patient is advised to attempt defecation after meals when colonic motility is maximum. Once postprandial defecation is regular, the laxative is gradually withdrawn.

### 3. Drug Treatment: Laxatives and its type

**Osmotic laxatives:** It does soften of stool and increases the bowel movements by drawing water to the bowel thus help in overcoming occasional constipation.

**Stimulant Laxatives:** The use of stimulant causes the pushing of stool outside by its property of contractions of the intestine. Sudden bowel movement and discomfort and cramps are the common side effects seen.

**Bulk-forming (fiber) laxatives:** It should be taken with more quantity of water to avoid side effects and bloating, as it contains fibre which uses the water in your intestines helping in making stool bulkier.

**Stool softeners:** It is usually advised in a patient in whom straining should be avoided, it helps in softening dry and hard stools by increasing fluid in the stool. Lubricant laxatives: It is usually given in patients having a blockage in rectum and anus, which helps the stool retain fluid and pass out without difficulty.

5. **Surgery:** In a condition of strictures and/or obstruction surgery is required as in Hirschsprung disease.

Surgery may also be the choice of treatment in defecatory disorders with rectocele, intussusception, and rectal prolapse<sup>9</sup>.

## LIMITATIONS OF MODERN TREATMENT

- Dependency- that is habit forming
- Worsens some symptoms- abdominal cramps, gas, bloating and pain
- Complications- diarrhoea, hypovolemia and metabolic disturbances
- Diminished effect over time- become resistant to laxative by overuse

## Role of ayurveda

In the management of *vibandha /malasanga*(constipation). primarily Diet plays an important role. In Diseased conditions in case of *Vrudha avastha* (Geriatric patients) they usually suffer from a *Vataja nanatmaja vyadhis*.where constipation is one among the symptom which is caused by abnormality of '*Apana'vata*.In the management of *vibandha* (constipation)our acharyas as explained *virechana , kostashodhana , anulomana* and *basti* line of treatment in many such conditions.

## Comparison with different ayurveda treatment

As mentioned in role of management *virechana, kosta shodhana*<sup>9</sup> can't be given in all types of *vruddha avasta*(Geriatric) because strength to withhold the treatment and palatability is most important in old aged patients.

## Importance *Basti* in management of constapatory bowel habits in geriatric

As per *Acharya sushruta* by administering *basti* the it stabilizes the *ayu*, stabilizes the normal function of dosa, *dathu* which indeed it stabilizes the *Deha*<sup>11</sup>. i.e. strength of the body .

As per *Acharya caraka* the disease of *sarvanga, Eakanga, sakagatha, kostagatha, Marmagata, Urdwajatrugata*, generalised and localized disease are due to *vata*.It dose *Vikshepa* (disintegration) and *Samghata*(integration) of *purisha*(stool), *Mutra*(micturition) and *piththa* (Bile)<sup>10</sup>.*Basti* is said to be best treatment for aggravated *vata*. *Acharya caraka* cited that *basti* introduced in the colon acts upon whole body and on every system.

As in a geriatric patient is considered as *vruddha avasta* in them the *vata pradhana* disorder are more common and additionally the drug dependent geriatric patients can have high chance of constipation. As above said by introducing *basti* in geriatric patients it helps in removing fecal matter and improves the health of a patient.

## **Types of *basti***

In the management of constipatory bowel habits both *matra* and *Niruha bastis* can be used for attaining a desired result.

### **Examples for *matra bastis***

- 1) *Pippliyadi taila matra basti*
- 2) *Sacharadi taila matra basti*
- 3) *Earanda taila matra basti*
- 4) *Balataila matra basti*
- 5) *Ksheerabala taila matra basti*

### **Examples for *Niruha bastis***

1. *Dvi panchamoola niruha basti*
2. *Erandamoola niruha basti*
3. *Vaitharana basti*
4. *Vata hara basti*
5. *Yapana basti*

### **Mode of action of *matra basti***

Taila or sneha (medicated oil or lipids) administered in the *Anuvasana Vasti* is totally antagonistic to the qualities of *Vata*. The snigdhata (unctuousness), guruta (heaviness), ushnata (heat) qualities of sneha are antagonistic to the ruksha (dry), laghu (lightness) and sheeta (cold) qualities of *Vata*. *Sneha* helps in lubricating the intestine and helps in easy evacuation

After getting rid of morbid *vayu*, *Anuvasana Basti* restores health. It causes pleasantness of the mind and nourishes (enriches) *veerya* (potency, sexual potency), *bala* (strength and immunity), *varna* (colour) and *agni* (metabolism)

### **Mode of action of *Niruha basti***

The *Vasti* (*Niruha*) on entering the *Pakwashaya* (colon) terminates the morbid *Vata* by roots. When the *Vata* is controlled in the *Pakwashaya*, which is the centre of administration of *Vata*, the other subtypes of *Vata* located in all the parts of the body will be automatically controlled. When the *Vayu* is controlled all the other elements

and activities which are under the control of *Vayu* fall into rhythm and get to become normal. The *niruha basti* helps in the intestinal mortility and equates the bowel.

## Discussion

*Vibandha* is not explained as a single disease in Ayurveda, but still described in association with many diseases. By the definition of constipation, with Rome II criteria & Bristol Stool Scale, one can correlate it with the *vibandha* which are given below. *Mala kshaya* may also be considered as a cause of constipation i.e., the infrequent passage of stool. The symptoms of *mala kshaya* are pain in cardiac region and sides and wind, with gargling sound, goes upward and moves around in the belly which is explained in Caraka Samhita. Thus, by suppression of defecation reflex, retention of feces occur which results in constipation. If once there is formation of hard stool, incomplete evacuation of the bowel which results in straining during defecation leads to several complications like haemorrhoids, etc. In geriatrics most of the patients are drug dependent in such cases the constipation as a symptom is more common. By choosing the *basti* as a primary line of treatment it helps in specifying the constipation and resulting in improvement in overall health.

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