ejpmr, 2023, 10(7), 139-143

SJIF Impact Factor 6.222

EUROPEAN JOURNAL OF PHARMACEUTICAL AND MEDICAL RESEARCH

www.ejpmr.com

Review Article

ISSN 2394-3211

EJPMR

GERIATRIC CONSTIPATION AND ITS MANAGEMET

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Article Received on 23/04/2023 **Article Revised on 13/05/2023** **Article Accepted on 03/06/2023**

ABSTRACT

According to *Acharya Sushruta, mandagni* is the main cause of *Vibandha* or constipation. It is to be noted that *Dusti of Apan vayu* and *Pureesha* causes *Vibandha.* And create symptoms like pain in Abdomen, gas formation, pain in anus while passing stool, headache, acidity, palpitation and in chronic cases, Piles and Fistula. *Vibandha* is a disease entity which usually occurs due to *Vata Prakopaka Ahara-Vihara* and non compliance of *Asthavidha Ahara Ayatana* and *Dwadasha Ashana Pravichara*. Prolonged table work, excessive consumption of aerated drinks and fast foods have become a part of present-day life style, which causes decreased secretion of digestive enzymes, and peristaltic movement leading to improper digestion and stagnation of semi-digested food and leads to *Vibandha or Constipation*. Constipation is a problem that affects all ages. However, it is a common problem in older adults and is often a concern to elders. Elders may falsely believe that constipation is a "natural" part of aging. but it's a disorder that is not caused by aging itself. Age-related anatomic changes within the lower gastrointestinal tract may contribute to delayed transit time and decreased stool water content, due to intestinal wall atrophy, reduced blood supply, and intrinsic neuronal changes and age-related neurodegenerative changes in the enteric nervous system (ENS), reductions in Internal Anal Sphincter (IAS) pressure and pelvic muscle strength, as well as changes in rectal sensitivity and anal function. In colons of people older than age 65, a 37% loss of enteric neurons was found when compared with younger people. Rectal sensation plays a critical role in normal defecation and it changes with aging. Elderly patients required significantly larger volumes of rectal distention to stimulate the normal urge to defecate. Fecal impaction should be treated with mineral oil or warm water enemas. Most patients are initially treated with lifestyle modifications, such as scheduled toileting after meals, increased fluid and dietary fiber intake. The next step in the treatment of constipation is the use of an osmotic laxative followed by a stool softener. They need special dietary attention because gastrointestinal function may be altered with advanced age, individual tolerances, their energy intake, and maintenance of a balanced diet with adequate fibre and fluid. There is also a decrease in microflora and metabolic activity. Long-term use of laxatives can lead to fewer bowel movements and maldigestion of food and nutrients.

KEYWORDS: constipation, vibandh, geriatric, ayurvedic dietic.

INTRODUCTION

According to *Acharya Sushruta, mandagni* is the main cause of *Vibandha* or constipation. It is to be noted that *Dusti of Apan Vayu* and *Pureesha* causes *Vibandha.* And creates symptoms like pain in Abdomen, gas formation, pain in anus while passing stool, headache, acidity, palpitation and in chronic cases, Piles and Fistula. *Vibandha* is a disease entity that usually occurs due to *Vata Prakopaka Ahara-Vihara* and noncompliance of *Asthavidha Ahara Ayatana* and *Dwadasha Ashana Pravichara*. Prolonged table work, excessive consumption of aerated drinks and fast foods have become a part of the present-day lifestyle, which causes decreased secretion of digestive enzymes, and peristaltic movement leading to improper digestion and stagnation of semi-digested food and leads to *Vibandha or Constipation*. Constipation is a problem that affects all ages. However, it is a common problem in older adults and is often a concern to elders. Elders may falsely believe that constipation is a "natural" part of aging. but it's a disorder that is not caused by aging itself. Although changes in the gastrointestinal tract associated with aging may predispose one to develop constipation, the disorder usually has a multifactorial etiology and maybe a lifetime disorder.

ETYMOLOGY

The word *"Vibandha*‖ is comprised of two Sanskrit words *'Vi'* and *'Bandha'* which means –To bind or fasten on different side or 'Stretch out' or 'To obstruct' Or "Constipated" or 'encircle'.

NIRUKTI

'Vi' - The word *Vi* is the *Upasarga.*
'Bandha' – The word *Bandha* means *Band Bandhne*.

VYUTPATTI

'*Vaata purishyohobandha Vibandha'*

SYNONYMS OF VIBANDHA

Sanskrit: *Mala bandha, Vidvibandha, Vidgraha, Vidsanga, Pureeshasanga*

Hindi*: Kabja, Kabjiat, Vibandha, Kosthabandha*
English: Constipation

NIDANA

Though, there is no independent mention of the causative factors of *Vibandha* available in the classical texts, but according to all the *Acharyas, Vata*, *Pitta* and *Kapha* are the main responsible factors for this Disease. However, the followings, given below are the important factors in causing this condition:

Ahara	***Vihara***
Oily and spicy food	Lack of Physical exercise
Non vegetarian food in excess	Fast and hurry life
Excessive intake of Tea and Coffee	*Vega vidharana*
Less intake of water and other liquid diet	*Divaswapna*
Intake of Fast foods	*Ratrijagaran*
Use of Tobacco and cigarettes	
Less intake of Green leafy vegetables	

Medication	***Medical causes of Constipation***
Aluminium based antacids	Cancer
Anticonvulsants	Cerebral Thrombosis
Antidepressants	Colon disorders
Antispasmodics	Diabetes
Diuretics	Hypercalcemia
Hypertension drugs	Hypothyroidism
Iron supplements	Irritable bowel syndrome
Laxatives and stool softener	Spinal injury
	Intestinal disorder
Manas	Parkinson's disease
Ati Chinta	Rectal disorders
Ati Shoka	Porpyhria
Ati Kshobha	Multiple sclerosis
Alasya	Stroke

Adults older than 65 years of age often become constipated is common due to several reasons. As we age, the colon's reflexes slowdown, increasing the risk of becoming constipated. Other causes of constipation in older people include:

- Lack of exercise
- Low Fibre diet
- Medications

RUPA

When the disease process of the *Dosa- Dushya Sammurchna* is completed the specific signs and symptoms of that particular disease are produced which are named as *Rupa* of the disease.

Acute symptoms:	**Chronic symptoms**
Coated Tongue with foul smell from mouth.	Palpitation
Headache	Pale skin color
Burning sensation	Headache
Gas formation	Hardness of stool during defecation
Pain in abdomen	Female disorders
Fatigue	Insomnia
Allergies	Less Mental energy
Anxiety	
Depression	

SAMPRAPTI

Dosha	*Apaan Vayu*
Dushya	*Pureesh*
Adhisthan	*Pakvaashya*
Srotasa	*Pureeshvaha*
Sroto Dusti lakshana	*Sang*
Udbhavasthan	*Amashaya, Pakvashaya*
Rogamarga	*madhayama*
Vyadiswabhava	*Chirakari*
Adhisthana	*Pakvashaya*

THE AGEING EFFECT

Age-related anatomic changes within the lower gastrointestinal tract may contribute to delayed transit time and decreased stool water content. These changes can include intestinal wall atrophy, reduced blood supply, and intrinsic neuronal changes. However, no significant functional changes are readily apparent in the aging gastrointestinal tract. Secretion and absorption remain relatively constant. This constancy is thought to be due to the redundancy in each segment of the intestinal tract.

Age-related neurodegenerative changes in the enteric nervous system (ENS) may be key to functional changes observed with advanced age. In colons of people older than age 65, a 37% loss of enteric neurons was found when compared with younger people2. A study reported that the total number of neurons decrease in older individuals. Both collagen and elastic system fibres are more numerous in the ganglia in the older participants over the age of 65 compared to age group of 20-35. The decrease in neuron density with age is accompanied by an apparent increase in the fibrous components of the myenteric ganglia. These findings suggest that neurodegenerative changes may contribute to the disturbed colonic motility seen in the aging population.

Older people have age-related reductions in internal anal sphincter (IAS) pressure and pelvic muscle strength, as well as changes in rectal sensitivity and anal function. Women in particular, experience a larger decrease in squeeze pressures with aging especially after menopause, and due to injuries sustained during vaginal delivery. These changes increase both the risk and the potential for constipation.

Aging is associated with changes in the structure and function of the colon and defecatory mechanisms. Regional differences in colonic properties and in neurotransmitter functions have implications for normal function and dysfunction.

Rectal sensation plays a critical role in normal defecation and may change with aging. In one study elderly patients with constipation and a history of faecal impaction had impaired rectal and perineal sensation and required significantly larger volumes of rectal distention to stimulate the normal urge to defecate. A second report described impaired rectal perception of stool in elderly patients with constipation, while sensation appeared to remain intact in those patients without constipation. Intestinal physiology is complex, involving neural, endocrine, and luminal sources of modulation. Neural control has both intrinsic and extrinsic elements; the intrinsic nervous system consists of cell bodies and endings that are positioned between the inner circular and outer longitudinal muscle layers of the gut wall. Abnormalities in neurotransmitters may contribute to dysmotility and the subsequent development of constipation. The release of acetylcholine is depressed in colonic tissue specimens from constipated patients. Excessive nitric oxide was found in interstitial cells of Cajal (ICC) preparations from the distal colon of patients with slow transit constipation (STC).

GENERAL MANAGEMENT

The principal of treatment in *Ayurveda* are three fold

- *Nidana Parivarjana*,
- *Apakarshana* and
- *Prakriti Vighata*.

Selecting any one of them depends on *Rogabala, Kala, Vaya, Agni, Aushadha* etc. When the morbid *Doshas* are more potent, the patient should be treated with *Shodhana.*

APAKARSHANA

- *Snehana*
- *Swedana*
- *Varti* (Suppository)
- *Pradhamana* (Insufflation)
- *Niruha*
- *Anuvasana*
- *Virechana*

PATHYAPATHYA

Pathyam Pathoanapetam …… *Ch. Su. 25/45*

Apathya refers to a diet that is unwholesome for both the body and the mind, whereas Pathya refers to a diet that is wholesome for both the body and the mind. Every patient should follow Pathyapathya for total disease care. Pathya Sevana is sometimes not only a part of treatment but the entire treatment. The treatment is not necessary if a person follows the Pathya. According to Ayurveda, the first step in treatment is to avoid Apathya Ahara, also known as Nidana. Apathya is an etiological component that should be avoided during and after treatment,

whereas Pathya is a supporting factor in the management of the condition.

TOILETING ACTIVITIES

Toileting Habits

1. **Promptly respond to the urge to defecate**
2. **Provide a consistent time for defecation**
3. **Provide as much visual, olfactory, and auditory privacy as is possible**

LIFESTYLE FACTORS

- **Dietary habits:**
- **Dietary fiber:**
- **Fluids:**

DIETARY CONSIDERATIONS FOR OLDER ADULTS

Older adults require special dietary attention because gastrointestinal function may be altered with advanced age. Important considerations in managing older adults are their individual tolerances, their energy intake, and maintenance of a balanced diet with adequate fiber and fluid. Older adults are at greater risk for malnutrition because of a myriad of factors. Particular attention should be paid to elders who eat poorly, lose weight involuntarily, or report problems with poor digestion and constipation. Gastric function, particularly colonic transit time, may be slowed. There is also a decrease in microflora and metabolic activity. Loss of lean body mass contributes to decreased bowel motility, along with reported maldigestion and malabsorption and decreased production of digestive enzymes. Long-term use of laxatives can lead to fewer bowel movements and maldigestion of food and nutrients.

Vitamin and mineral intakes should be maintained at the same level as in younger adults, who may be more active and consume more calories. Food and fluid intake of older adults should be evaluated. One to two servings of higher fiber foods (legumes, whole grains, cereal brans) or concentrated fiber sources may be necessary to maintain normal bowel function.

Because the thirst sensation decreases with age, elders should resolve to drink from 6 to 8 ounce glasses of non caffeinated, nonalcoholic liquids daily.

Chronic constipation in the elderly is often caused by a decrease in fibe rcontaining foods, inadequate fluid intake, lack of physical activity, and loss of bowel muscle tone. Relatively little is known about how aging affects the bioavailability of vitamins and minerals, although increasing fiber intake may negatively affect the bioavailability of calcium and zinc. Older adults on tube feedings will require special attention.

MEDICAL INTERVENTIONS

ENEMAS AND SUPPOSITORIES

Enemas and suppositories can be useful for fecal impaction or in patients who cannot tolerate oral preparations. Phosphate enemas should be avoided in older adults because of the high risk of electrolyte disturbances, which are sometimes fatal. Mineral oil enemas are a safer alternative to phosphate enemas, with local adverse effects of perianal irritation or soreness. Plain warm water enemas are safe and preferable to soapsuds enemas, which may cause rectal mucosa damage. Glycerin suppositories are safe alternatives to enemas and have been shown to improve rectal emptying in patients with chronic constipation.

BULKING AGENTS

Bulking agents may be soluble, such as psyllium, or insoluble, such as bran, methylcellulose, and polycarbophil. These agents absorb water into the intestine to soften the stool and increase bulk. Bran and psyllium improve stool frequency in older patients, but there is more evidence for the effectiveness of psyllium than bran in persons of all ages. Adverse effects such as bloating, abdominal distention, and gas are more common with psyllium. Bulk laxatives should be avoided if fecal impaction is present.

OSMOTIC LAXATIVES

Osmotic laxatives are not absorbable. These laxatives draw water into the intestinal lumen. Lactulose and sorbitol are hyperosmolar sugar alcohols that increase frequency of defecation and reduce straining. They are metabolized by colonic bacteria and then absorbed by colonic mucosa.

STIMULANT LAXATIVES

Senna and bisacodyl (Dulcolax) promote intestinal motility and increase fluid secretion into the bowel.

STOOL SOFTENERS

Another category of drugs used to treat constipation includes the emollients and lubricants, also known as surfactant or stool softeners. The drugs in this category facilitate the mixture of aqueous and fatty substances in faecal material, thus resulting in softening that material and ultimately making it easier to pass the stool.

CONCLUSION

Therefore, it is be seen that, apart from the various diet, dietary disorders and changing life styles, psychic factors like stress is also an important triggering factor in causing Vibandha/ Constipation in geriatric population.

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