

Comparison of conventional low FODMAP diet therapy and Pathya ahara in Irritable Bowel Syndrome

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ABSTRACT

This paper describes the comparison between conventional low FODMAP diet therapy and Pathya ahara in Irritable Bowel Syndrome. Irritable Bowel Syndrome is an intestinal disorder causing pain in the stomach, gas, diarrhea and constipation¹. The causes of irritable bowel syndrome are not well understood. A diagnosis is often made based on the symptoms. Intake of low FODMAP diet may decrease symptoms associated with irritable bowel syndrome. FODMAP stands for fermentable oligosaccharides, disaccharides, monosaccharides, and polyols. FODMAP are carbohydrates that are difficult to digest as they pull more water to the bowel and increase bloating, gas, pain and diarrhea. In Ayurveda, symptoms of grahani resembles most of Irritable Bowel Syndrome symptoms. In Grahani, deranged agni and formation of ama leads to either constipation or loose stools². Role of pathya ahara are deepniye, pachniye, laghu and nitya sevaniya which plays an important role in grahani because one of the root cause of grahani is faulty eating habits. In Ayurveda, Pathya ahara recommendations do not differ significantly as compared to other dietary recommendations for irritable bowel syndrome.

Key words: Irritable Bowel Syndrome, Grahani, FODMAP, Pathya ahara.

INTRODUCTION

Good health depends upon a balanced lifestyle and proper diet. In the era of economic development and urbanization, improper eating habits and sedentary lifestyle leads to many diseases. Along with this change, disturbance to the digestive system resulting in Irritable Bowel Syndrome (IBS). In Ayurveda, the basic approach is related to the state of equilibrium of Dosha, Dhatu, Mala & Agni & a state of wellbeing of mental & spiritual forces (Atma, Indriya & Mana). Grahani roga is one in which agni, the digestive power is supposed to be at fault³.

Functionally weak Agni i.e. Mandagni causes improper digestion, which leads to Amadosh that leads to Grahani Roga, which can be correlated to IBS due to similar clinical features. Hence, dietary modification and lifestyle changes play an important role in managing the Grahani roga / IBS in ayurveda and modern medicine system⁴.

AIMS AND OBJECTIVES

- 1) To understand the concept of Grahani according to Ayurveda and Modern view.
- 2) To understand role of pathya in Grahani
- 3) To understand concept of low FODMAP diet in IBS.
- 4) To compare pathya and low FODMAP diet in Grahani / IBS.

MATERIAL AND METHODS

Literature review of Grahani & its pathya is collected from Ayurvedic samhita, Journals. Articles on the internet and similarly modern view of IBS & low FODMAP diet is collected from modern pathology and medicine books.

Irritable Bowel Syndrome (IBS) is an idiopathic, functional gastrointestinal disorder characterized by abdominal pain and altered bowel habits, including diarrhea, constipation, alternating diarrhea and constipation, nausea, bloating, and sensation of incomplete evacuation¹. Symptoms of IBS vary in severity and duration from person to person, the cause of IBS isn't well understood. IBS is a worldwide disorder with a similar prevalence rate in both developed and developing countries. Prevalence of IBS varies between 10 to 22% of the US population. IBS can affect people of all ages.

Ayurvedic approach

IBS has been a problem for people for thousand of years and has been mentioned in the earlier literatures of Ayurveda. IBS is known as "GRAHANI" in Ayurveda⁵.

Agni (or digestive fire) is responsible for breaking down food. If the person is not able to digest the food easily, then it implies that fire element “Agni” is weak. This improper digestion can lead to the accumulation of toxins (ama) and all the major symptoms of IBS are the result of these toxins. In Ayurvedic Treatment of IBS, main focus is on treatment and reduction of Ama. By this approach the body is detoxified and doshas are brought into balance.

Four major types of Grahani, based on bowel habits⁶:

- Constipation predominant Grahani/IBS (Vataja)
- Diarrhoea predominant Grahani/IBS (Pittaja)
- Dysentery predominant Grahani/IBS (Kaphaja)
- When a person encounters a combination of all the above symptoms (Tridoshaja)

Chikitsa (Treatment)

Treatment Guideline in Grahani:

1. 50% cases shows physiological relation, always treat it.
2. Treatment for ama with ama pachanna dravya
3. In weak Agni, dravya to increase digestive power.
4. Gritha preparation is good if agni is very low.
5. Using Takra will help to prevent unwanted bacterial flora in the Intestine.

Drug Therapy

1. Anti-spasmodic agent and anti-cholinergic agent (Belladonna, Hyoscyamine).
2. Anti-diarrheal (Loperamid)
3. Anti-constipation agent's (Fibers Supplementation with Psyllium, Methylcellulosis, Polycarbophil, Bran)
4. Psychotropic agents (Low doses of Tricyclic depressants and anxiolytics)
5. Serotonin receptor agonist and antagonists (Tegaserod increases stool frequency, improves stool consistency, and reduces abdominal pain and bloating).

Lifestyle changes

- Increase dietary fibers.
- Restore healthy balance of bacteria in GI tract.
- Identify and remove food intolerances.
- Mind-body therapy.
- Bring daily routine into life.
- Be aware that IBS is not Life-threatening health problem.
- Learn not only what the right food is, but also how to prepare and combine food components.

Pathya

Acharya Charaka had detailed Pathya as a synonym for treatment. He mentions that when channels of circulation become hard by aggravated doshas, dhatu and malas than Pathya helps to soften the shrotasa (channels of circulation) and alleviate vitiated dosha⁷. According to Ayurvedic Classics, treatment is incomplete until Pathya and Apathya are being followed by the patient. “Pathya” is one which is Hithakara to the body as well as mind, it may be in the form of Ahara dravya or Vihara. “Apathya” is one which is Ahithakara to the body and mind. Pathya and Apathya to be followed in Grahani Roga can be categorized as Aharja and Viharja. Takra is the best diet in Grahani Roga as it has both dietetic and medicinal value. Fermented milk product refers to the liquid leftover after churning the curd with water is termed as *Takra*. *Takra* (Butter milk) is an amazing probiotic drink, brimming with nourishment that helps in the support of wellbeing and avoidance of different ailments. *Takra* is divine nectar on earth for people that envelop different restorative properties and gives an ensuring shield against different stomach diseases. Pathya Ahara Annavarga – Shashti, Shali, Jeernashali, Masoora, Tuwari, Mudga, Yusha, Lajamanda, Vilepi, etc. Shaka varga - Ramba pushpa, Changeri.

S.No.	Varga	Pathya	Apathya
1	Aharaja		
	Annavarga	Shashtishali, Jeernashali, Massora, Tuwari, Mudgayusha, Lajamanda, Vilepi, Dhanyaka etc.	Virudha bhojan, Asathmya bhojana, Guru, Sheeta, Atiroksha, Sandhusta Bhojana, Dushtajala, Amla, Lavana, Saraka dravya etc. Godhuma, Yava, Kalaya, Masha, Rajamasha, Nishpava, Rasona.
	Shakavarga	Changeri, Kutaja, Vastuka, Changeri	Kakamachi, Kushmanda, Tumbi, Kanda, Tambula, Pathrasakha
	Phalavarga	Dadima, Kapitta, Bilwa, Jatiphala, Kadaliphala, Harithaki, Jumbu, Tinduka	Badara, Narikela, Draksha, Kantakari

	Pushpavarga	Bakula, Shaluka	-----
	Mamsvarga	Kshudramatsya, Ena, Tittira, Lava, Shashanka	-----
	Madhyavarga	Madira	Dhanya amla, Souvira, Tushodaka.
	Gorasavarga	Dadi, Takra, Grutha, Ajadugda, Godugda, Navaneetha	Mastu
	Tailavarga	Tuwari, Tila	-----
	Ekshuvarga	Madhu	Ekshu, Guda
2	Viharaja	Nidra, Vishrama, activities making mind happy	Veganigraha, Chinta, Shoka, Bhaya, Krodha, Vireka, Vamana, Sneha, Vibramath etc.
3	Others	-----	Vyadhikarshanath, Desha, Kala, Ruthuvaishamyath

Low FODMAP diet –

FODMAPs stands for fermentable oligosaccharides, di-saccharides, mono- saccharides and polyols⁸.

Fermentable - These are all foods that your gut bacteria feed on, converting them to gases in a chemical process called fermentation.

Oligosaccharides - These are soluble plant fibers known as prebiotics, which feed the beneficial bacteria in your gut. Oligosaccharides include onions, garlic, beans/lentils, and many wheat products. Sensitivity to oligosaccharides may help explain some cases of non-celiac gluten sensitivity. Since gluten-free grains are lower in fermentable sugars than grains that have gluten, some people who think they are sensitive to gluten may be sensitive to the oligosaccharides residing in wheat products.

Disaccharides - Lactose is the fermentable sugar in this group, the sugar in dairy and human milk. Lactose intolerance is one of the most common food intolerances worldwide.

Monosaccharides - Fructose, the sugar in fruit, is the fermentable sugar in this group. But only in certain quantities and proportions, so not all fruits are affected.

Polyols - These are sugar alcohols, commonly used as artificial sweeteners. They are also found naturally in some fruits.

But more simply, FODMAPs are certain types of carbohydrates -- the sugars, starches, and fiber in foods. For most, these foods are not a problem unless you eat too much of them. But some people are sensitive to them. FODMAPs draw water into your digestive tract, which could make you bloated. If you eat too much of them, they can hang around in your gut and ferment.

A low-FODMAP diet is designed to help people with irritable bowel syndrome (IBS). In a study published in the journal *Gastroenterology*, about 3 out of 4 people with IBS had their symptoms ease right away after starting a low-FODMAP diet and felt the most relief after 7 days or more on the plan. *A low FODMAP diet restricts high FODMAP foods. Scientific evidence suggests that this eating pattern may benefit people with IBS.*

IBS symptoms include stomach pain, bloating, reflux, flatulence, and bowel urgency⁹. Notably, a low FODMAP diet has been shown to decrease both stomach pain and bloating. Evidence from four high quality studies concluded that a low FODMAP diet leads to an 81% and 75% greater chance of relieving stomach pain and bloating, respectively. Several other studies suggest that this diet also helps manage flatulence, diarrhea, and constipation. In fact, a low FODMAP diet is now considered first-line dietary therapy for IBS in many parts of the world.

DISCUSSION

Many IBS patients experience symptom improvement because of dietary changes, and their links to specific foods, such as a low fermentable oligo-, di-, and monosaccharides and polyols (FODMAPs) diet. IBS sufferers may benefit from short trials of gluten and lactose avoidance¹⁰. Many foods that contain poorly absorbed carbohydrates, which ferment in the bowel and cause bloating and gas, are excluded from low FODMAPS diets. Brussels sprouts, cabbage, and cauliflower are gas-producing foods and not good for IBS. FODMAPS containing foods include dairy products, a variety of fruits (including apples, cherries, mangoes, pears, and melons), and grains (including barley, rye, and wheat) are also not good for health in IBS patients. Dietary fiber's roles in IBS are debatable. Ispaghula, oats, and psyllium are soluble fibers that may help with general IBS symptoms. Insoluble fibers like bran may help with constipation, but they also exacerbate other IBS symptoms like bloating. Encourage patients to drink more water while gradually increasing their dietary fiber intake to minimize bloating and gas.

Similarly, in Grahani, Dietary changes that promote good eating habits improve Agni and reduce the risk of Grahani roga¹¹. Meals should be consumed at regular intervals. Junk food, allergic foods and food difficult to digest should be avoided. Ayurveda recommends a balanced diet as part of Sansarjana Krama, as well as a regular food plan based on the Prakriti of the individual. As a result, Grahani's patient was advised to follow the Sansarjana Krama eating pattern. Abhojanat, Ajeernabhojanat, Attibhojanaat, Visamasanat, Asatmya, and Sandusta Bhojanat should all be avoided. Preparation and consumption of unhygienic food articles

should be avoided. Virudha-ahara must be avoided; means one should consume diet as per his/her internal constitution by following concept of Desha and Kala. Diets which promote digestive enzymes, restore normal flora and maintain nutritional sufficiency should be promoted. Role of takra prayoga is more or less debatable between pathya as per ayurveda and low FODMAP DIET as per modern.

CONCLUSION

In this paper, we have tried to compile the importance of diet in the causation of Grahani roga. As there will be a diminution of agni in grahani, to correct this we have listed out the ahara dravyas having gunas such as deepana, pachana, laghu, grahi and madhura, kashaya, katu rasa according to different vargas. Based on these dravyas the food preparations can be adopted. Also, we tried to bring similarities among ayurveda and modern dietary recommendations like avoidance of wheat, garlic, onion, alcohol, Melons, guda (jaggery), beans, lentils in diet can help in improving IBS symptoms. We can correlate the approach of treating IBS/Grahi with respect to dietary recommendation is equally important in ayurveda as well as modern¹². The perspective in both diets is easily digestible food, which is light in property, less complicated carbohydrates and which doesn't ferment to produce gas and bloating.

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