

SIGNIFICANCE OF USING FODMAPs DIET IN THE TREATMENT OF IRRITABLE BOWEL SYNDROME (IBS)

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Abstract: Irritable bowel syndrome (IBS) is a functional, chronic, often disabling, the disorder characterized by abdominal pain and changes in bowel habits. It is more common in females. The pathophysiology of irritable bowel syndrome is incompletely understood. The most common symptoms of IBS include abdominal pain, change in the bowel habits, diarrhea in the ability to empty bowels, indigestion, nausea, passing excessive amounts of gas, urgent need to defecate, abdominal discomfort or cramps. There is no definitive diagnosis of IBS. Treatment of IBS-the treatment of IBS mainly focuses on the relief of symptoms. Mild to moderate symptoms can often be managed by making lifestyle and diet three changes. The FODMAPs diet has been shown to be an efficacious therapy for the reduction of functional gastrointestinal symptoms. Foods that are high in FODMAPs includes knowing that anything made with wheat, barley or rye, apples, artificial sweeteners, beans, cashews, cauliflower, dried fruit, Garlic and onions, honey, ice cream, mushrooms, pistachios, watermelon, and high fructose corn syrup. Fermentable oligosaccharides, disaccharides, monosaccharides, and polyols (FODMAPs) are short-chain carbohydrates poorly absorbed by humans due to their small size, high osmotic activity, and the speed with which they are fermented by the microbiota. FODMAPs diet not only showed significant improvement in the symptoms of IBS patient but also has shown some significant improvement in patients with celiac disease compared to normal diet.

Keywords: Irritable bowel syndrome (IBS), abdominal pain, FODMAPs diet.

1. INTRODUCTION

IRRITABLE BOWEL DISEASE:

Irritable bowel syndrome (IBS) is a functional, chronic, often disabling, the disorder characterized by abdominal pain and changes in bowel habits [3].

The prevalence of irritable bowel syndrome is higher in women than men. It also accounts for one of the most common causes of gastroenterologist visit in the United States [3]. Nearly two-thirds of IBS patients report that their symptoms are related to food [4].

The pathophysiology of IBS is incompletely understood, and treatment options are limited, partly due to the heterogeneity of the IBS population [5]. Factors that appear to play a role include muscle contractions in the intestine, inflammation in the intestine, nervous system, Changes in the gut microflora and severe infection. Some other triggers are food, stress, and hormones [7].

The pathogenic mechanism by which food induces IBS symptoms remains unclear, but it includes visceral hypersensitivity, altered motility, abnormal colonic fermentation, and sugar malabsorption, all of which lead to increased gas production and luminal distention [6].

The most common symptoms of IBS include abdominal pain, change in the bowel habits, diarrhea in the ability to empty bowels, indigestion, nausea, passing excessive amounts of gas, urgent need to defecate, abdominal discomfort or cramps.

The three most common types of IBS include diarrhea-predominant IBS, constipation pre-dominant IBS and IBS associated with mixed symptoms of diarrhea and constipation.

I resent variant of IBS that is identified is IBS associated with Whipple's disease-like symptoms.

Some of the listed risk factors are young age, female gender, family history of IBS and other mental health problems [7].

Prevention of IBS can be done by dealing with the stress factors which works as triggers for the flare-up of the symptoms. Some of the interventions include counseling, biofeedback, progressive relaxation exercises and mindfulness training [7].

Drug therapy for this entity has shown limited efficacy [2].

Some of the most common complications of IBS are the poor quality of life and signs and symptoms of anxiety or depression.

Diagnosis of IBS: There is no definitive diagnosis of IBS. Diagnosis of IBS requires a high level of suspicion by the doctor along with meticulous history, physical examination and other tests to rule out similar manifesting diseases. Some radiological tests that can be done in these patients include flexible sigmoidoscopy, colonoscopy, and x-ray or CT scan of the abdomen. Laboratory tests done to exclude IBS are lactose intolerance test, breath test for bacterial overgrowth, upper G.I. endoscopy exclude celiac disease and stool tests to exclude bacterial or parasitic infection which can lead to chronic diarrhea.

Treatment of IBS-the treatment of IBS mainly focuses on the relief of symptoms so that the patient can live as normally as possible.

Mild to moderate symptoms can often be managed by making lifestyle and diet three changes. The interventions usually include avoidance of trigger causing factors, the inclusion of high fiber foods in the diet, intake of an adequate amount of fluids, Regular exercise and getting enough sleep.

Some of the studies have shown that avoidance of gluten-containing diet can lead to improvement of the symptoms of IBS. On the other hand, Bloating can be avoided had improved by avoidance of consumption of carbonated and alcoholic beverages, caffeine, raw fruits and certain vegetables like cabbage, broccoli and cauliflower [8].

Some of the treatment options include fiber supplements, laxatives, antidiarrheal medications like loperamide, anticholinergic medications like dicyclomine, try cyclic antidepressants like imipramine, desipramine, SSRI antidepressants and pain medications like Pregabalin and gabapentin [8].

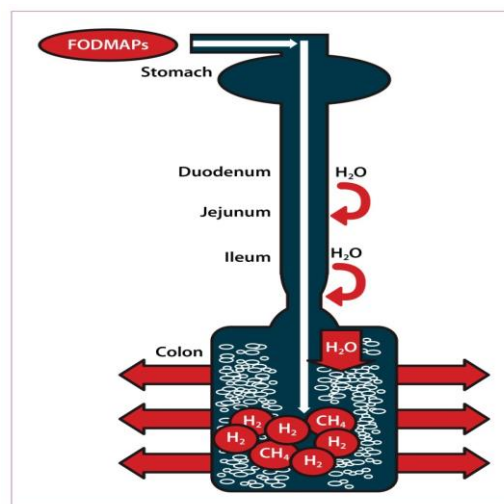
Medications specifically used for IBS include- Alosetron, Eluxadoline, Rifaximine, Lubiprostone, and Linaclotide's [8].

Research is going on to identify new treatment in IBS. The nutrition therapy that is serum-derived immunoglobulin hi sugar some promise as a treatment for IBS with diarrhea.

FODMAPs-Fermentable oligosaccharides, disaccharides, monosaccharide, and polyols.

They are short-chain carbohydrates which have a small size, high osmotic activity, and the speed with which they are fermented by the microbiota thus making their absorption very poor [1].

Foods that are high in FODMAPs includes knowing that anything made with wheat, barley or rye, apples, artificial sweeteners, beans, cashews, cauliflower, dried fruit, Garlic and onions, honey, ice cream, mushrooms, pistachios, watermelon, and high fructose corn syrup.



[3]

Low FODMAPs foods include almonds, coconut, rice, soy milk, bananas, bell peppers, blueberries, carrots, grapes, oats, potatoes, cucumbers, rice, spinach and tomatoes [9].

FODMAPs diet has recently emerged as an effective intervention for reducing gastrointestinal symptoms in IBS. In addition, high-quality evidence (prospective studies and randomized controlled trials) from a variety of countries support the high effectiveness of a low-FODMAPs diet for IBS symptoms (70%), especially abdominal bloating, pain, and diarrhea. [2].

2. METHODOLOGY

In the following review article, the data is pooled from various literature referring the web To understand the existence of the significance of the FODMAPs diet in the treatment of Inflammatory Bowel Disease.

Various studies were done all over the world to understand the use of the FODMAPs diet and its clinical significance in the symptomatic treatment of inflammatory bowel disease.

From the review of the previous article made on the basis of the past researches done it is understood that FODMAPs diet leads to significant improvement and there's definitely superior to normal diet in patients with inflammatory bowel disease.

Although, it is clear that there is a clinically significant improvement in the symptoms of IBS patients with the use of this diet but we still believe that there is a scope of research that can be done to achieve better success in the treatment of IBS.

3. RESULTS AND CONCLUSION

Studies about low-FODMAPs diet to reduce the symptoms presented by patients with irritable bowel syndrome (IBS) have recently grown [1].

Our understanding is that this diet should be implemented in the patients with the help of an experienced dietician and proper follow-ups to check for improvement in response and adherence to the regime is required.

Several studies have shown that the FODMAPs diet restricts the intake of a certain type of food, and it leads to a significant improvement in the symptoms of irritable bowel syndrome patients [1].

FODMAPs diet not only showed significant improvement in the symptoms of IBS patient but also has shown some significant improvement in patients with celiac disease compared to normal diet.

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