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Review Article about Study of Irritable Bowel Syndrome

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Annotation: Despite years of advising patients to change their diet and take fiber supplements, the evidence surrounding the use of fiber for the treatment of functional bowel diseases is limited. However, irritable bowel syndrome (IBS) is the most common functional gastrointestinal disorder worldwide and is associated with numerous social and economic costs. Health-related quality of life is often impaired in IBS patients. The pathophysiological mechanisms underlying IBS remain poorly defined. The therapeutic approach for IBS patients is symptom-based, and fiber may play an important role in treatment. Among the different types of fiber, water-soluble, non-clumping fiber appears to be a promising option for the treatment of IBS. Partially hydrolyzed guar gum (PHGG) is a water-soluble, non-clumping fiber that has shown therapeutic benefits. The co-occurrence of IBS and common mental disorders such as anxiety and depression is well known. A range of biological and

psychosocial disease mechanisms are common to both disorders, many of which contribute to dysfunction of the gut-brain axis. Clinical psychiatric illnesses and comorbid psychological disorders add to the functional impairment and disease burden of individuals with IBS. In clinical trials, guar gum reduced symptoms in constipation- and diarrhea-predominant forms of IBS and reduced abdominal pain. Furthermore, an improvement in quality of life was observed in IBS patients during and after treatment with partially hydrolyzed guar gum. Furthermore, PHGG appears to have probiotic properties as it increases the colonic contents of short-chain fatty acids, lactobacilli, and bifidobacteria.

Introduction: -

About 60% of irritable bowel syndrome patients suffer from many psychological disorders, such as anxiety, sadness, phobia, obsessive-compulsive disorder, and depression, which are conditions associated with delusions.

Psychological disorders and delusions usually occur as a result of anxiety about many things, such as: financial and health status, etc. It is worth noting that these disorders lead in one way or another to the appearance of other physical symptoms, including stomach upset, tremors, muscle pain, insomnia, dizziness, and irritability.

Negative feelings, such as: stress, anxiety, and depression, stimulate chemicals in the brain that increase the person's feeling of pain in the intestines, which leads to the appearance of various colon symptoms.

On the contrary, having irritable bowel syndrome also increases the likelihood of developing psychological disorders and delusions; This is because irritable bowel syndrome symptoms greatly affect the patient's quality of life, and may eventually lead to delusions as a type of complication, and these complications can continue even after the condition is treated. In Western countries, irritable bowel syndrome seems to affect women twice as often as men. Irritable bowel syndrome is very common, affecting up to 15 percent of the world’s population. Most people with IBS develop their first symptoms before the age of 40, and many patients recall symptoms developing during childhood or young adulthood. There appears to be a familial component, with many IBS patients reporting a family member with similar symptoms. Less commonly, IBS symptoms develop after a severe intestinal infection; this is called post-infectious IBS. It’s important to note that IBS is very different from the inflammatory bowel disease (IBD) of the same name. Recent research has shown that many of the symptoms of IBS are related to hypersensitivity of the nerves in the wall of the digestive tract. These nerves are different from those in the spinal cord and brain. For some people,

IBS may arise from how the nerves in the gut communicate with the brain, or how the brain processes this information.

Description of the condition.

Irritable bowel syndrome (IBS) is a condition of the digestive system that causes recurrent episodes of abdominal pain or discomfort related to bowel habits. This includes recurrent abdominal pain and changes in bowel movements, which may be diarrhea, constipation, or both. With IBS, you have these symptoms without any visible signs of damage or disease in your digestive system. The condition affects up to 5-10% of people worldwide and can affect children and adults of both sexes.

Although IBS does not shorten lifespan, it is associated with a significant health and economic burden. Studies have shown that people with IBS have an increased number of healthcare visits, diagnostic tests, and surgeries. IBS can also severely impact a person's quality of life.

IBS is a functional disorder of the digestive system. Functional disorders of the digestive system, which doctors now call gut-brain interaction disorders, are associated with problems with how the brain and gut work together. These problems can cause your gut to become more sensitive and change the way the muscles in your gut contract. If your gut is more sensitive, you may experience more abdominal pain and bloating. Changes in the way the muscles in your gut contract can lead to diarrhea, constipation, or both. The causes of irritable bowel syndrome are unclear. Theories include a combination of gut-brain axis disruption, intestinal motility disorders, pain sensitivity, infections including small intestinal bacterial overgrowth, neurotransmitters, genetic factors, and food intolerances. The onset may be due to an intestinal infection or stressful life events. Diagnosis is based on symptoms in the absence of worrisome features and once other possible conditions have been ruled out. Worrisome features include age greater than 50 years, weight loss, blood in the stool, or a family history of inflammatory bowel disease. Other conditions that may present similarly include celiac disease, microscopic colitis, inflammatory bowel disease, bile acid malabsorption, and colon cancer. IBS can be classified as diarrhea-predominant (IBS-D), constipation-predominant (IBS-C), both (mixed/alternating) (IBS-M/IBS-A) or pain-predominant. In some individuals, IBS may have an acute onset and develop after an infectious illness characterized by two or more of the following: fever, vomiting, diarrhea or a positive stool sample. This post-infectious syndrome is therefore called “post-infectious irritable bowel syndrome” (IBS-P

What are the causes of irritable bowel syndrome?

There are many causes that lead to irritable bowel syndrome, including the following: -

1. Motility disorder: You may have problems with how the muscles of the digestive system contract and move food through the digestive system. The colon (large intestine) muscle tends to contract more in people with irritable bowel syndrome. These contractions cause cramps and pain.
2. Visceral hypersensitivity: Your nerves in the digestive system may be very sensitive. People with irritable bowel syndrome tend to tolerate pain less than people without it. The digestive system may be very sensitive to abdominal pain or discomfort.
3. Gut bacteria: Research has shown that people with irritable bowel syndrome may have altered bacteria in their digestive system, which contributes to the appearance of symptoms. Studies have shown that the types and amounts of gut bacteria are different in people with irritable bowel syndrome than in people without it.
4. Severe infection: Some people are diagnosed with IBS after a severe gastrointestinal infection, suggesting that bacteria may play a role.
5. Food intolerance: Allergies to certain foods may contribute to IBS.
6. Childhood stress: IBS is more common in people who experienced severe childhood stress, including physical, sexual, and emotional abuse.

There are some other causes that can cause irritable bowel syndrome including:

1. Food allergies, such as lactose intolerance or any other food allergy.
2. Anemia, thyroid problems, and signs of infection.
3. Use of certain types of medications, such as
4. High blood pressure medications, iron supplements, and some types of antacids.
5. Overgrowth of bacteria in the small intestine.
6. Enzyme deficiency, and checking whether the pancreas secretes enough enzymes to digest or break down food properly.
7. Celiac disease, gluten sensitivity, or wheat allergy

Irritable bowel syndrome can be divided into several sections, which are as follows: -

There are four subcategories of irritable bowel syndrome, each of which has the same prevalence:

1:- Diarrheal irritable bowel syndrome.

It is a type of irritable bowel syndrome that is often the cause of diarrhea and abdominal discomfort.

2:- Painful irritable bowel syndrome.

It is a type of irritable bowel syndrome that is often the cause of constipation and abdominal discomfort.

3:- Mixed irritable bowel syndrome.

It is a type of irritable bowel syndrome that is the cause of alternating loose stools and constipation with abdominal discomfort.

Symptoms of Irritable Bowel Syndrome

The main symptom of irritable bowel syndrome is abdominal pain or discomfort associated with a change in bowel habits. People with irritable bowel syndrome may describe abdominal discomfort in different ways, such as sharp pain, cramping, bloating, stretching, fullness, or even burning. The pain may be caused by eating certain foods, after eating a meal, emotional stress, constipation, or diarrhea.

Other symptoms include:

1:- Mucus in the stool.

2:- Feeling of incomplete evacuation.

People with irritable bowel syndrome may also experience symptoms unrelated to the bowel, including:

1. Migraines.
2. Sleep disturbances.
3. Anxiety or depression.
4. Fibromyalgia.
5. Chronic pelvic pain.

Some people with irritable bowel syndrome are able to tolerate their symptoms very well and go about their normal routines. Others find that their symptoms prevent them from enjoying a full quality of life, even going to work or doing other important activities.

Stress is often associated with

The most important irritants of irritable bowel syndrome.

There are many foods that irritate irritable bowel syndrome, including the following.

1:- Psychological stress, anger, pressure, and anxiety.

2:- Uncooked garlic and onions.

3:- Soft drinks.

4:- Some medications.

5:- Coffee and tea.

6:- Fried foods.

7:- Spices and seasonings.

8:- Some types of vegetables (cabbage, cabbage, molokhia, eggplant).

9:- Exposure to cold air currents.

10:- An unusually large meal.

11:- Eating tomatoes with their peels (but without the peel they do not irritate the colon).

12:- Yogurt and milk.

13:- Lentils, beans, and legumes of all kinds, etc.

How is irritable bowel syndrome diagnosed?

There is no specific test or imaging to diagnose irritable bowel syndrome, but diagnosis involves ruling out conditions that cause symptoms similar to those of irritable bowel syndrome, and then following a procedure to classify symptoms according to the types of irritable bowel syndrome.

Treatment of Irritable Bowel Syndrome.

The treatment of Irritable Bowel Syndrome aims to relieve symptoms and improve the patient's life; since the causes of the disease are not clear, treatment usually begins with the following:

1:- Improving the diet and avoiding irritating foods, by monitoring the type of foods eaten for a certain period and noting the foods that worsened the patient's symptoms, as the type of foods that stimulate symptoms may vary from one person to another.

2:- Lifestyle changes, such as increasing physical activity and getting enough sleep at night.

3:- Relaxation and learning skills to deal with psychological pressure and tension.

4:- Antispasmodic medications, which reduce cramps and abdominal pain by relaxing the intestinal muscles.

5:- Laxatives, to relieve constipation, but they should be used with caution. Examples include polyethylene glycol laxatives.

6:- Tricyclic antidepressants, which may help relieve abdominal pain and cramps.

7:- Antibiotics, such as Rifaximin, to reduce diarrhea associated with irritable bowel syndrome.

8:- Probiotics are live bacteria and yeasts that are good for digestive health.

Some symptoms of irritable bowel syndrome can be alleviated with herbs and some non-drug treatments, such as:

1:-:- Peppermint oil.

2:- Artichoke leaf extract.

3:- Aloe vera.

4:- Flaxseed.

5:- Wheat bran.

6:- Corn fiber.

7:- Microneedling.

8:- Relaxation and yoga sessions.

9:- Deep breathing sessions.

However, a doctor or pharmacist should be consulted before starting to take herbs, to ensure that there is no physical or medical impediment to the patient taking them

Ways to prevent irritable bowel syndrome.

Avoid foods that may irritate the colon such as: caffeine (tea, coffee, and energy drinks), sugars, soft drinks, artificial sweeteners, high-fat foods, and chewing gum.

1:-Avoid some foods that contain carbohydrates that are difficult to digest.

2:-Avoid foods that increase gas (cauliflower, broccoli, and cabbage).

3:-Be sure to eat meals regularly.

4:-Be careful when eating dairy products for those with lactose intolerance.

5:-Drink plenty of fluids, especially water.

6:-Practice physical activity regularly to reduce stress and stimulate natural contractions of the intestinal muscles.

7:-Reducing stress, through deep breathing, relaxation, etc.

8:-Quit smoking

The most important complications of irritable bowel syndrome.

IBS does not cause damage to the intestines, nor does it increase the risk of other diseases, such as cancer. However, irritation of the irritable bowel and increased severity of its symptoms can result in the following complications and health problems:

1:- Hemorrhoids, especially in the case of repeated bouts of diarrhea or severe constipation.

2:- Dehydration, in the case of chronic diarrhea, which is why it is recommended to replace fluids and electrolytes.

3:- Poor quality of life for the patient, and his life and social and functional activities may be affected as a result of changes in bowel movements and other disturbing symptoms.

4:- Anxiety or depression.

Conclusion:

Irritable bowel syndrome (IBS) is a real medical disorder that has a significant impact on those with pain in terms of symptom severity, disability, and quality of life, exceeding that of most gastrointestinal disorders. Advances in research over the past several decades have paved the way for a better understanding of the underlying pathophysiology and a standardized symptom-based approach that can be implemented in making a positive diagnosis and developing innovative treatment options for the multiple symptoms of IBS. Although many questions remain unanswered, the progress is promising and has provided clinicians with a better diagnosis of IBS and a choice of a growing array of treatment options.

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