

## PATIENT EDUCATION AND SELF-ADVOCACY: QUESTIONS AND RESPONSES ON PAIN MANAGEMENT

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### Irritable Bowel Syndrome

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#### ABSTRACT

Questions from patients about analgesic pharmacotherapy and responses from the authors are presented to help educate patient and make them more effective self-advocates. The topics addressed in this issue are the signs, symptoms, and treatment of irritable bowel syndrome (IBS). A discussion of pain management and complementary therapies is included.

**KEYWORDS** Amitiza, diarrhea, IBS, IBS-C, IBS-D, IBS-PI, irritable bowel syndrome, Lotronex, peristalsis, psyllium, spastic colon, Zelnorm

#### QUESTION FROM A PATIENT

My spouse has irritable bowel syndrome (IBS) and is often in substantial pain. Lately the pain has been much worse. She has tried all the usual remedies without success. How can her pain be better managed? What kinds of providers, traditional and complementary, treat IBS?

#### ANSWER

Irritable bowel syndrome (IBS), also known as spastic colon, is a collection of signs and symptoms like abdominal pain, bloating, distension, incomplete stool emptying, and alteration of bowel habit without a known cause (1,2). It is a diagnosis made after other conditions have been ruled out. The syndrome is classified by dominant symptoms. If diarrhea is dominant, it is diagnosed as IBS-D; if constipation is dominant, it is diagnosed as IBS-C; if altered stool pattern or pain is dominant, it is diagnosed as IBS-A; and if

it occurs after an infection it is diagnosed as IBS-PI (postinfectious IBS) (3).

The prevalence of IBS has been found to be 14% of the US population (4). IBS is a chronic illness that does not progress. It causes chronic pain, tiredness, absenteeism from work, altered relationships with others, depression, anxiety, and reduction in quality of life (5). It is commonly found with other diseases such as esophageal reflux, genitourinary disorders, depression, anxiety, headache, back pain, chronic fatigue syndrome, inflammatory bowel disease, prior abdominal surgeries, and fibromyalgia (6).

The cause of the disease is not known. It is thought that in normal functioning, the many layers of muscles that line the intestinal wall work in a coordinated manner to push food through from the stomach to the rectum. This mechanism is called peristalsis. In some individuals, this mechanism becomes uncoordinated and food is pushed through too fast, causing bloating and diarrhea. In others, the movement is slowed down, causing constipation, pain, and incomplete evacuation of stool. There is also thought to be a defect in the brain-gut nervous system causing dysfunction (7).

Many reasons for this condition to occur have been considered. There is a 6-fold chance of IBS occurring after a gastrointestinal infection (8). IBS occurs more often in people who are younger aged and

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female. Also, fever with infection, anxiety, and depression have been correlated with IBS. Recent studies have also looked at biopsy specimens from IBS patients, noting that inflammation and immune problems are part of the disease, indicating an abnormality in the body's immune reaction to infection (9). Some studies and theories support the possibility of a bacterial infection that is yet undiscovered.

There is no test for IBS. Many other stomach conditions have signs and symptoms that overlap with IBS. The diagnosis of IBS is made by excluding other known diseases. There are a number of formulations to help rule out other conditions such as celiac disease, Crohn's disease, ulcerative colitis, lactose intolerance, and gastrointestinal infections. It is important to look out for warning symptoms that can indicate other more severe diseases, such as blood in stools, weight loss, low blood count, and night time pain (10).

There are many traditional and complementary approaches to treatment of IBS. They include the following.

### Food

Many patients find that some foods cause a flare-up of symptoms. Lactose intolerance and IBS have similar symptoms and a trial of lactose-free diet is recommended (11). One study found a fructose- and fructan-free diet reduced symptoms in patients with IBS and fructose-absorption problems (12). Broad or generalized testing for particular food intolerance has been unsuccessful and diet changes have been recommended to individuals on a case-by-case basis (13). There is no proof that people with IBS suffer from digestion problems or lack of nutrients (14).

### Fiber

Water-soluble fiber products, e.g., psyllium, guar gum, wheat dextrin, which are marketed as bulk-forming fiber laxatives, work as symptom control in patients who have constipation as a major issue (15). For psyllium, doses of 10 to 30 grams per day have been found to be effective. In patients with diarrhea-dominant symptoms, this fiber may make symptoms worse. Insoluble fiber has not found to be helpful (16).

### Medications

In patients with constipation as a major symptom, osmotic laxatives and stool softeners have been found to be helpful. The most studied has been polyethylene glycol (PEG) (17). A medication called lubiprostone is approved by the US Food and Drug Admin-

istration for treatment of IBS with chronic constipation symptom dominant. This medication causes increased mucous secretions in the gut, softening stools, easing their passage, and promoting spontaneous bowel movements (18).

In diarrhea-dominant patients, antidiarrheal medications such as loperamide have been helpful. Antispasmodic drugs have been useful in some patients. The antispasmodic medications act in two primary ways. At the nerve endings, medications such as atropine block the nerves to gut-reducing spasms and at the gut muscle, mebeverine and alverine citrate cause relaxation and reduced spasms. A Cochrane meta-analysis concluded that six patients needed to be treated for one patient to benefit (19).

Neuromodulation agents (medications affecting nervous system) such as tricyclic antidepressants and serotonin agonists have also been used to provide relief in patients with IBS. Tegaserod (Zelnorm) is a serotonin agonist (increases the amount of serotonin) that was used to treat constipation-dominant IBS, but was discontinued in the United States in 2007 as a result of adverse side effects (20). Selective serotonin reuptake inhibitors (SSRIs) such as Prozac have been found to be helpful in well-designed studies (21). Serotonin antagonists, which block or inhibit action at serotonin receptors, such as alosetron hydrochloride (Lotronex), have not been found to be useful in severe diarrhea-dominant cases. Because of the medication's side effects, only a select group of patients can benefit from it and doctors prescribing it must be enrolled in a special program. It is not approved for use in men (22). Additionally, tricyclic antidepressants (e.g., Elavil) are used in the treatment of IBS and are most helpful with diarrhea-dominant symptoms. A meta-analysis found three people needed to be treated for one to get benefit (23). Rifaximin (Xifaxan), an antibiotic that stays in the gut and has minimal body effects, has been used effectively to treat traveler's diarrhea. It has also shown to be effective in reducing diarrhea, bloating, and flatulence in IBS patients, thus providing more evidence for bacterial cause of IBS (24).

### Herbal Remedies

Peppermint oil capsules have been shown to be effective in adults and children with IBS symptoms (25). There is good evidence for its use and also its safety profile. Iberogast, a multiherb extract, was found to be superior to placebo (inert medication) in reducing pain from IBS and IBS symptoms after 4 weeks of treatment (26). In a review of the use of probiotics for IBS symptoms, *Bifidobacteria infantis* has been shown to be useful (27).

## Psychotherapy/Hypnotherapy/Acupuncture

Cognitive-behavioral therapy, relaxation strategies, and hypnotherapy have been found to be helpful in controlling the symptoms of IBS; it gives patients tools to cope with their illness, changes behavior that increases symptoms, and improves general mental well-being (28). Acupuncture has been used in some patients successfully to treat IBS symptoms, but a recent review of the studies found that definitive proof was lacking (29). There are some centers that recommend yoga and hypnotherapy for symptom control (30).

A primary care physician may treat a person with IBS or may refer the patient to a gastroenterologist, a medical doctor who specializes in the diagnosis and treatment of diseases of the digestive system. A naturopathic doctor may also provide care; naturopathic philosophy favors a holistic approach. Social workers, psychologists, and hypnotherapists can provide psychotherapy, cognitive behavioral therapy, support group counseling, and hypnotherapy for patients and caregivers; acupuncturists and yoga practitioners also can provide services for people affected by IBS.

## CONCLUSION

Our understanding of IBS is still developing and as it grows, we expect to see new therapies being proposed in the future. As the causes are unknown, treatment for IBS focuses on symptom control, disease management, and improving functionality in affected patients. Pain affects the whole person—mind, body, and spirit—and often is best managed using a combination of pharmacological and complementary treatments.

## Declaration of Interest

The authors report no conflicts of interest. The authors alone are responsible for the content and writing of this paper.

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