DIGESTIVE CENTER of the Palm Beaches

Irritable Bowel Syndrome (IBS)

OVERVIEW

KEY FACTS:

- Symptoms of abdominal discomfort, bloating, diarrhea and/or constipation may be part of a real medical condition called IBS
- Through no fault of their own, patients have spent a significant amount of time suffering
- Symptoms disrupt patients' everyday lives, social interactions and work
- Abdominal pain, bloating, diarrhea and/or constipation characterize a major portion of IBS sufferers
- Many sufferers do not seek care for IBS
- New therapies for IBS offer realistic hope to help restore quality of life which these patients deserve, but which many may have believed was out of reach

WHAT IS IRRITABLE BOWEL SYNDROME?

Irritable bowel syndrome (IBS) is a disorder of bowel function (as opposed to being due to an anatomic abnormality). Patients who suffer from irritable bowel syndrome have changes in bowel habits such as constipation or diarrhea, and abdominal pain along with other symptoms including abdominal bloating, and rectal urgency with diarrhea. In addition, irritable bowel syndrome may be associated with a number of non-intestinal ("extraintestinal symptoms"), such as difficulty with sexual function (pain on intercourse or lack of libido), muscle aches and pains, fatigue, fibromyalgia syndrome, headaches, back pain, and sometimes urinary symptoms including urinary urgency, urinary hesitation or a feeling of spasm in the bladder.

IBS is an extremely common disorder. Studies have estimated the prevalence in the United States is somewhere between 10% and 15% of the entire population. IBS is seen in similar frequencies in other countries around the world. Most studies suggest that irritable bowel syndrome is more common in women with almost twice as many women having the disorder compared to men. The reason why women are more commonly affected by irritable bowel syndrome is not completely understood. It does not seem to be merely due to hormonal differences between men and women. Rather it seems to be due to differences in how women and men process sensations from the intestines, both in the intestinal nervous system ("enteric nervous sytem") as well as the brain and spinal cord ("central nervous system"). The frequency of IBS seems to be the same across racial, ethnic and national boundaries.

Despite the fact that irritable bowel syndrome is so common, most people with IBS do not see a doctor for their symptoms. It is estimated that only 1 in 4 people with IBS see a doctor (and thus become a patient with IBS). Reasons why some people chose to see a doctor and others do not are not completely understood. Interestingly the severity of gastrointestinal symptoms from IBS alone does not seem to be the major driving factor. Rather the impact of IBS on the patient's ability to function on a day-to-day basis while having IBS symptoms, the stress from having IBS, and concerns about other diseases that they might have are some of the more frequent reasons patients see their doctor for IBS like symptoms.

Irritable bowel syndrome is not associated with serious medical consequences. People with IBS tend to live long, and in some studies, somewhat longer than individuals who do not have IBS. IBS is not a risk factor for other serious GI diseases, such as inflammatory bowel disease (Crohn's disease or ulcerative colitis) or colon cancer. The presence of IBS does not put extra stress on the other organs in the body such as the heart, liver or kidneys. Overall the prognosis for irritable bowel syndrome is excellent. Patients suffering from IBS should not be worried about it leading to other serious diseases. The major problem with IBS is not that it causes death, but because it changes the quality of life for people who suffer from it. In the last 20 years, we have come to understand how important quality of life is for patients suffering from health problems (called 'health related quality of life', HRQOL for short). We now understand that the severity of all diseases, not just IBS, cannot be measured only with tests or how severe symptoms are. Rather we have begun to understand that the true measure of the impact of any disorder is the negative impact on a patient's HRQOL. In IBS, health related quality of life is usually not as good compared to people who do not have IBS. This makes IBS a particularly troublesome disorder.

Studies have shown that that when compared to patients with diabetes, gastro esophageal reflux disease (GERD), as well as individuals who have no gastro intestinal disorders, patients with IBS had significantly higher degrees of impairment in their quality of life. By this is meant their physical functioning, their ability to participate in the activities of daily living, their level of emotional distress, as well as their sexual functioning and all the other components that go into a happy and healthy normal life without disease. This is the true impact of IBS and is an important reason that it deserves serious attention from the medical community. IBS is also a costly disease, not only in terms of money spent for health care but also money lost because of a patient's inability to work while they have symptoms. It is estimated that IBS causes a loss of $30 to $90 billion per year in productivity. After the common cold, IBS is the second most frequent reason people take days off from work in the United States. This makes IBS a very important issue for the society in general, which clearly needs to be addressed by the medical community.

Irritable bowel syndrome is not a trivial illness. It deeply affects the quality of life of the patient and their ability to function effectively in society. The economic cost of irritable bowel syndrome has been estimated to be over $80 billion a year to the American economy. However, above and beyond this is the large number of people in our society who experience IBS symptoms daily who in the past have suffered in silence because there were no effective treatments available. Patients with IBS should see their physician and get recommendations on the latest treatments available. However, it is also important that the patient with IBS understand that although this is a chronic illness, symptoms can be controlled, and the overall prognosis is actually quite good.

SYMPTOMS

ABDOMINAL DISCOMFORT OR PAIN, BLOATING, CONSTIPATION OR DIARRHEA

If you have some or all of these symptoms, you may suffer from a treatable medical condition called irritable bowel syndrome or IBS. While not life threatening, this disorder can have significant impact on your life.
If you suffer from these symptoms, see your doctor, talk about your symptoms and ask about treatment that may be right for you. For many sufferers, the abdominal discomfort, bloating and constipation of IBS can be managed effectively. For those patients who seek care, physicians have treatment options that can relieve the abdominal pain, bloating and constipation of IBS and improve your quality of life, giving you the relief you deserve.

WHAT IS IRRITABLE BOWEL SYNDROME (IBS)?

IBS is a functional gastrointestinal (GI) disorder, a condition in which symptoms are due to dysfunction of the gut, not a structural problem like cancer. Nevertheless it is a real and treatable medical condition. IBS is a chronic disorder that is characterized by recurring (symptoms that come and go over time) abdominal discomfort or pain associated with an altered bowel habit, either constipation, diarrhea or both. IBS is different from routine, occasional constipation or diarrhea.
IBS is best defined by what it is NOT:

- an anatomical or structural problem
- an identifiable physical or chemical disorder
- a cancer and will not cause cancer
- a precursor of other gastrointestinal diseases
- something you have to 'just live with'

Contrary to popular belief, IBS is not a psychosomatic disorder. Stress and anxiety do not cause IBS. Instead, research suggests that IBS is dysfunction caused by changes in the nerves and muscles that control sensation and motility of the bowel. IBS is 1.5—2 times more common in women than in men and is most commonly diagnosed in people under the age of 50.

Remember, IBS is a real medical condition, but it is not life threatening, and will not lead to other serious diseases. Your GI tract may work differently, moving more slowly (or more quickly) than the average.

CAUSES

WHAT CAUSES IRRITABLE BOWEL SYNDROME?

The exact cause of irritable bowel syndrome is not known. However, tremendous advances in our understanding of this common and disabling disorder have been made in the last 10 years. Abnormal motility in terms of the bowel moving too fast (which causes diarrhea) or too slow (which causes constipation) is certainly part of this syndrome. However, this represents only one part of a complicated disorder. The symptoms of pain, incomplete emptying of the bowels, and bloating cannot be explained only by abnormal gut GI motility. Over the last 20 years a number of very well done scientific studies have demonstrated that individuals with IBS tend to have higher levels of sensitivity in the intestines compared to individuals who do not have IBS.

In the last 10 years, we have identified certain chemicals present in the gut, which send signals from nerve endings from the intestines to the brain, and also from the brain to the intestines. These chemicals are called "neuro transmitters" and work as messengers between nerve endings to carry signals including painful sensations in both directions. This is very important because this has led to the development of new drugs to treat IBS. Some of these drugs are currently available. Others are in development. As we identify more and more of these substances and better understand their actions, we may be able to further supplement the arsenal of medications that will influence these neuro transmitters and thus help relieve the symptoms of IBS. A number of other interesting theories have been put forward in the last few years. One is the concept that IBS may be triggered by an intestinal infection. A small but significant number of people contract IBS-like symptoms which persist after suffering from an acute self limited (and ultimately resolved) gastrointestinal infection. This suggests a possible role for either the activation of inflammatory transmitters or possibly an immune reaction to the original infectious agent (the germ or virus). Again, the exact mechanism why this occurs is not clear and is under intense investigation.

Another interesting theory which has been put forward is the possibility is that IBS may result from overgrowth of normal bacteria in the gut. This "bacterial overgrowth" is an intriguing theory. However there have been a number of conflicting studies to support/not support this theory. What is interesting is that there are IBS patients that do indeed seem to respond to treatment with antibiotics. Again, the exact reason why bacterial overgrowth would exist in patients with IBS and/or cause IBS to occur has not been completely explained. It represents another provocative perspective on the role of gut flora in the generation of bowel disorders.

Although it is proposed in some quarters there is little evidence to support that IBS results from "food intolerance". This is to be differentiated however with the fact that celiac disease, an autoimmune disease that cause a violent inflammatory reaction in the intestine to the protein gluten can mimic the symptoms of IBS. Recent evidence shows that in patients with IBS-like symptoms testing for celiac disease, which can be accomplished with a simple blood test, should be considered, particularly if IBS like symptoms do not respond to reasonable treatment.

Clearly the future is quite bright both for better understanding this perplexing and disabling disorder as well as using this knowledge to make newer and better treatments for IBS available.

TESTS & DIAGNOSIS

HOW IS IRRITABLE BOWEL SYNDROME DIAGNOSED?

Irritable bowel syndrome has several symptoms. A number of IBS experts have met over the last 15 years in Rome, Italy to decide which symptoms would help doctors to make the diagnosis of IBS and other similar diseases as well as to discuss the best methods to diagnose and treat these diseases. The "Rome Diagnostic Criteria" that these experts proposed say that a patient must have symptoms consistent with IBS for at least 3 months over the previous year before this diagnosis can be considered. Altered bowel habits and the presence of lower abdominal pain is key to making a diagnosis of IBS. There are other parts to the Rome Criteria and these can be obtained from your physician. Your doctor can use the Rome Criteria to make a diagnosis of IBS. However, taking a careful medical history is essential to identifying IBS, and identifying and addressing through treatment the specific symptom complaints of the patient is a key component. Should your doctor in the course of his/ her history taking, physical examination discover findings which are of concern he or she will order additional tests to make sure you do not have other gastro intestinal disorders. Should nothing emerge during your doctor visit from the history, physical examination and from routine blood studies that are commonly performed during an office visit for IBS-like symptoms your doctor will most likely make an IBS diagnosis.

The safety and accuracy of making an IBS diagnosis based on the Rome III criteria has been the subject of a number of studies which have confirmed these criteria as accurate and correct in making a diagnosis of IBS anywhere from 65% to 100% of the time, again with strong reliance on the patient's symptoms. In most cases endoscopy (looking at the lining of the stomach and upper intestines and/or colon by the use of an endoscope, a long tube with a video camera at the tip) is not necessary for the diagnosis of IBS. There are a number of situations where endoscopy may be performed. The first is that everyone should be screened for colon cancer according to standard guidelines.

Anyone age 50 or older who has IBS-like symptoms should have a colonoscopy as part of a routine screening examination to rule out colon cancer. For people who have a family history of colon cancer in a parent, brother or sister the recommended age for screening colonoscopy is 40 years old. African Americans are more likely to develop colon cancer at an earlier age and should also consider colonoscopy screening at age 40. Likewise, your doctor may perform upper endoscopy if you have certain symptoms like persistent diarrhea that does not sound like IBS. Your doctor may also order other tests like a CT scan of the abdomen (a special x-ray of the abdomen which shows the organs in the abdomen particularly the pancreas, gall bladder and liver as well as the intestines) or certain blood tests. Surgery is rarely required for the diagnosis of IBS and should be avoided. Sometimes patients are willing to undergo surgery because their pain is so severe. Studies have shown that surgery done only for an indication of IBS-like pain is usually not helpful in finding the cause of the patient's pain and rarely leads to improvement in a patient's pain symptoms.

NEW RECOMMENDATIONS ON DIAGNOSTIC TESTING IN IBS

Because of the low likelihood of uncovering organic diseases in patients with typical IBS symptoms, extensive diagnostic testing with thyroid function studies, stool for ova and parasites, and abdominal imaging should not be performed routinely in patients with typical IBS symptoms and no alarm features. Routine serologic screening for celiac sprue may be useful in patients with diarrhea-predominant IBS or the mixed type of IBS. Lactose breath testing can be considered when lactose maldigestion remains a concern despite dietary modification.
Treatment Options

HOW IS IBS TREATED?

Traditionally much of the effort to treat IBS symptoms focused on lifestyle, diet and reduction of stress. Although not proven scientifically, there are some dietary changes that some patients have found helpful and can be tried by individuals with little risk:

- Avoid or limit the amount of gas-producing foods such as beans, onions, broccoli, cabbage, or any other foods that you have found to aggravate your IBS symptoms.
- Try to slow down how fast you eat and avoid overeating.
- Drinking excessive water will not improve bowel habits or IBS symptoms.
- Drinking carbonated drinks (colas, pop, soda) can introduce gas into the intestines and cause abdominal pain. Chewing gum may lead to a significant amount of air being swallowed.
- Avoid large quantities of the sugar substitute, sorbitol, which can cause excess gas, bloating, cramping and diarrhea.
- Intolerance to milk sugar, lactose, is seen in up to 40% of patients with IBS. Avoiding dairy products may be helpful in reducing symptoms of IBS in some patients.

- The addition of wheat bran or other dietary fiber may be suggested by your doctor in an attempt to decrease your symptoms. Evidence of benefit is limited and fiber may aggravate bloating, especially if the amount in the diet is increased rapidly.
- If you make a change to your diet, do it gradually to give your body time to adjust.

Psychological stress makes any condition harder to tolerate, and IBS and its symptoms are no exception. Some patients have attained some relief through relaxation techniques and participation in regular exercise or a hobby. IBS symptoms are not primarily manifestations of psychological disorders, but behavioral therapies have been demonstrated to have positive impact on symptoms for some IBS patients.

WHAT OTHER TREATMENTS ARE USED FOR SYMPTOMS OF IBS?

Since there is no cure for IBS at present, medical treatments for IBS are used to reduce the patient's predominant symptoms. There are a wide variety of available therapies, many of which improve patient well-being and individual IBS symptoms. Only a few therapies have been shown to be of benefit for all the symptoms of IBS. None of these treatments help every patient with IBS.

*Trials suggest psyllium, fiber, certain antispasmodics, and peppermint oil are effective in IBS patients although the quality of the evidence is poor.

*Patients often notice that certain foods exacerbate their IBS symptoms. Avoiding those foods makes sense in those individuals. There is, however, insufficient evidence that food allergy testing or blanket exclusion diets are efficacious in IBS and their routine use outside a clinical trial is not recommended.

*Anti-diarrheals reduce the frequency of stools in patients with IBS-D and laxatives increase stool frequency in IBS-C, but neither treatment affects pain.

*Evidence suggests that some probiotics("good bacteria") may be effective in reducing overall IBS symptoms but more data are needed.

*Some people with IBS are thought to have too many germs in the small intestine. Non-absorbable antibiotics reduce symptoms, sometimes for weeks after being given, particularly in diarrhea-predominant IBS.

*Agents that work on the nerves in the gut have been tried to treat IBS. These medicines affect serotonin levels or serotonin receptors on the nerves and have proven value in some patients:

- **The 5HT 3 antagonist, alosetron, is efficacious in women with IBS with diarrhea. Patients need to be carefully selected, however, because potentially serious side effects include severe constipation and reduced blood flow to the colon. Current use of alosetron is regulated by a prescribing program set forth by the FDA. It can only be used in women with severe IBS with diarrhea who have failed other treatments.
- **The 5HT 4 agonist, tegaserod was modestly effective in IBS patients with constipation, but the possible risk of cardiovascular events such as stroke or heart attacks caused the FDA to limited its use and resulted in its withdrawal from the market. Currently, there are no 5-HT 4 receptor agonists available for use in North America, but new drugs in this category are being developed.
- **Tricyclic anti-depressants and more modern antidepressants (selective serotonin reuptake inhibitors) seem to be effective in IBS patients of all subtypes. These drugs are used to reduce pain and other symptoms in IBS, not specifically to treat depression.

*The lining of the gut has pores ("channels") that let ions in and out of the lining cells of the gut. The selective C-2 chloride channel activator, lubiprostone, allows more chloride and water to enter the intestine and is efficacious in constipation-predominant IBS.

*Psychological therapies, such as psychotherapy and hypnotism, also may provide benefit to IBS patients although the quality of evidence is poor.

*Alternative therapies, such as unique Chinese herbal mixtures or acupuncture seem to show a benefit in IBS, but more work is needed before any recommendations about the use of these treatments can be made.