



Irritable bowel syndrome

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Irritable bowel syndrome (IBS) is a condition that a significant number of people suffer from daily, yet it still remains misunderstood and thus difficult to treat or manage. It is a common condition that affects patients physically, psychologically, socially and economically.¹ Also sometimes referred to as spastic colon, IBS is defined as a functional gastrointestinal (GI) disorder.^{1,2} It is usually characterised by stomach cramps, abdominal pain and intermittent diarrhoea occurring over a period of at least 3 months.^{3,4} It is important to note that IBS is not a disease, but rather a functional disorder, meaning an abnormal function of the bowels, that results in a number of symptoms. Other symptoms include, bloating, gassiness or flatulence, and bowel habits that alternate between periods of diarrhoea (IBS-D) and constipation (IBS-C).^{1,2}

Causes and prevalence

Although there is ongoing research, the causes of IBS remain poorly defined. The exact cause of IBS is not known. Some experts believe that it may be caused by a psychological factor, where there is faulty communication between the brain and the intestinal tract. In some people, this miscommunication causes abnormal muscle contractions or spasms, which often cause cramping pain.⁴ The spasms may speed the passage of stool, causing diarrhea. Or they may slow it down, causing constipation or bloating. Other causes may be stress and psychological issues such as anxiety and depression. Hormonal changes, such as those occurring during a menstrual cycle, have also been suspected to trigger IBS symptom onset. Suggestions for other triggers include food sensitivities (though no particular foods have been linked with IBS),^{3,4} some medicines such as antibiotics, an infection in the digestive tract such as salmonella, or genetics as it is

suspected that IBS may be more likely to occur in people who have a family history of the disorder.⁵

IBS occurs more often in women than in men, with women being 1.5 times more likely to suffer. The onset occurs before the age of 35 in about 50% of patients.^{1,5} Although the prevalence rate in most countries is between 10–15% of the population, in South Africa it is a bit lower, estimated to occur in less than 8% of the population.^{1,6}

Diagnosis

Doctors have had a number of tools developed over the years to assist in diagnosing IBS. As IBS is typically diagnosed by a process of elimination or exclusion, a doctor would consider other alternatives first, thus performing tests to exclude any other medical conditions.^{1,5}

The Rome IV criteria is the most recent tool in the diagnosis of IBS. It requires that patients have had recurrent abdominal pain on average at least 1 day per week during the previous 3 months that is associated with 2 or more of the following^{1,6}:

- Related to defecation (may be increased or unchanged by defecation)
- Associated with a change in stool frequency
- Associated with a change in stool form or appearance.

Supporting symptoms include the following:

- Altered stool frequency
- Altered stool form
- Altered stool passage (straining and/or urgency)
- Mucorrhea
- Abdominal bloating or subjective distention.

Four bowel patterns may be seen with IBS, and these remain in the Rome IV classification. These patterns include the following¹:

- IBS-D (diarrhea predominant)
- IBS-C (constipation predominant)

- IBS-M (mixed diarrhea and constipation)
- IBS-U (unclassified; the symptoms cannot be categorized into one of the above three subtypes).

Treatment

Since IBS has no known cure, targeting symptomatic relief is usually the aim of the treatment.¹ In the pharmacy setting, patient education is critical in successfully treating IBS. Education should be aimed at teaching the patient to identify stressors or triggers and to develop their own techniques to avoid these. It has been reported that many patients successfully manage the condition by paying attention to dietary triggers.¹

1. Traditional therapies that treat the symptoms include⁶:

- Bulking agents for constipation (i.e. Normacol)
- Antidiarrhoeals (such as Loperamide) for diarrhoea
- Antispasmodics (i.e. Brevispas, Colofac) for pain.

2. Newer therapy- Absorbatox⁷

A 2017 South African study by Lamprecht JC et al.⁷ explored the possibility of Absorbatox[®], a potentiated clinoptilolite (mineral device) with unique adsorptive and absorption properties, as treatment for IBS.⁷ Although the exact pharmacological action of Absorbatox[®] is not completely clear, the substance may play a role as an ameliorating agent in the ab- and adsorption of certain endogenous chemicals which can cause GI symptoms such as diarrhoea, bloating, distension and abdominal discomfort. The active ingredient, clinoptilolite, is a zeolite, and has the ability to adsorb bile acids, harmful toxins, gasses including CO₂, CH₄, H₂, and NH₃, and has also been shown to reduce bacterial contamination of the gut.

The study reports that some zeolites have antidiarrhoeal, immuno-stimulatory and antioxidative, antibacterial and antifungal, antacid as well as glucose adsorbent-like properties, and that human data has demonstrated the safety of clinoptilolite consumption.

Powdered zeolites are inert and whenever ingested do not react chemically with food or body fluids or their metabolites. The risk of any associated adverse effects is therefore said to be insignificant.

Zeolites and in particular Absorbatox[®] have been the topic of many safety studies both *in vitro* and *in vivo* demonstrating their safety. Extensive human exposure to clinoptilolites such as Absorbatox[®] is documented in various clinical conditions such as diarrhoea.

The study used 750 mg Absorbatox[®] capsules three times daily, and the results show that at the end of a 4-week treatment, 67% and 40% of patients were classified as *overall* responders in the Absorbatox[®] and placebo groups respectively (N = 50). After week three and week four of treatment the number of

weekly responders was significantly higher (p < 0.5) in the Absorbatox[®] group compared to the placebo group.

When patients with predominant constipation were excluded, IBS-C (constipation dominant group), then 74% overall responders were found to be in the active group compared to 29% overall responders in the placebo group (p = 0.01). The study concluded that potentiated clinoptilolite shows clinical benefit and should be tested further in larger clinical trials. In addition, potentiated clinoptilolite also shows reduced symptoms of IBS-D and IBS-M respectively. This product is currently available in South Africa.

3. Serotonergic drugs

Tricyclic antidepressants and selective serotonin uptake inhibitors (SSRIs) have been shown to provide relief of the general IBS symptoms.¹ Drugs such as Prucalopride are reported to be effective in patients with IBS-C.⁶

4. Drugs that increase fluid secretion in the gut

It is important to suggest drugs that improve the ease of stool passage, thus improving colon transit time.⁶ A study on polyethylene glycol (PEG) laxative in adolescents with IBS-C showed improved stool frequency.¹

5. Natural or alternative treatments

There are many non-medical treatments available. Probiotics have proved to be valuable to a certain subset of patients.⁶

6. Changes in lifestyle or diet

- Impact exercises improve some symptoms, especially constipation. Symptoms are also improved by excluding "gas-forming" foods (fatty foods, onions, the cabbage family, dried beans and lentils including soy, citrus fruits, oats, nuts, visible fibre, avocado pears, coconut and yeast containing products).⁶ Avoiding certain foods that "trigger" or worsen diarrhoea, bloating and gas such as cruciferous vegetables (for example, cauliflower, wasabi, kale, and broccoli), and legumes (for example, black beans, edamame, soy nuts, and fava beans) also seems to improve symptoms.⁵
- Other home remedies to relieve symptoms of IBS include adding fibre to the diet, drinking plenty of water, avoiding soda, eating smaller meals, and eating more low fat and high carbohydrate foods.⁵

References:

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