



## SOOTHING THE IRRITABLE BOWEL SYNDROME

# *Soothing the Irritable Bowel Syndrome*

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Functional gastrointestinal disease accounts for the majority of patient presentations at gastrointestinal clinics, and up to 50% or more of patients presenting with abdominal symptoms have no organic abnormality detected. The most common functional gastrointestinal conditions in Canada are irritable bowel syndrome (IBS), and functional dyspepsia or nonulcer dyspepsia (NUD). Other functional disorders may affect specific regions of the alimentary tract, such as the esophagus, the sphincters of the bile duct and the rectum. These conditions are ill understood and lack effective treatments (1,2). Epidemiological studies are infrequent, often unreliable and affected by cultural differences that affect the reporting of symptoms to physicians.

The hypothesis underlying IBS is that there are excessive or uncoordinated gastrointestinal contractions, leading to extensive gastrointestinal motility and myoelectrical activity studies. Various abnormalities of colonic intraluminal pressures have been recorded, such as decreased segmental contraction, increased propagated wave frequency in diarrhea and decreased wave frequency in constipation. IBS is characterized by excessive colonic motor responses to physiological and pharmacological stimuli, such as meals, stress or drug administration (cholecystokinin). The exact range of normal colonic motility is hard to define because many techniques are used to detect it (3-5). Intestinal motility studies are useful as research tools but are not useful in the clinical management of IBS.

It is increasingly accepted that patients with IBS perceive events in the gut lumen or in the gut wall differently (6-8). IBS patients have a measurable lower threshold for unpleasant sensation compared with controls. The lower threshold may be accompanied by a higher than normal sensitivity to painful somatic stimuli (9).

The pathophysiological basis for the proposed hypersensitivity is unclear. Several factors may play a role, including genetic inheritance, inflammation, abdominal motility, local nerve irritation and psychological influences. The exact site responsible for hypersensitivity in the afferent pathway is unknown, whether it be at the nerve receptors in the gut wall, the peripheral nerves, the spinal tract or the site of central nervous system modulation of afferent input. True hypersensitivity or anticipation of unpleasant visceral stimuli (hypervigilance) may be responsible for the painful sensations (7,8). The role of food allergens, bile acid malabsorption, short chain fatty acids or lactose, which have all been shown to affect intestinal motility, transit and secretion, is unclear in IBS.

Psychological factors loom large in the perception of patients with IBS and of doctors treating them. More anxiety, somatization and depression disorders are present in IBS patients than in controls, along with excessive psychosocial and personality disorders. However, subjects with symptoms of IBS who do not seek medical consultation have psychological profiles similar to those of the general

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population. A high incidence of previous history of physical or sexual abuse was reported to be associated with IBS, especially among women with IBS (13). The significance of this observation in the genesis of IBS symptoms is unknown. Progress in the specific treatment of the chronic and relapsing disorder is slow. Symptoms vary from persistent, minor nuisance to disabling severity. A full explanation and counselling of the genesis of these symptoms, and reassurance that they do not lead to life-threatening or subsequent serious medical disorders are a major part of the management of IBS. Patients with diarrhea-predominant IBS can sometimes be helped with exclusion diets; however, these are often poorly tolerated, cumbersome and not in widespread use. There is little evidence that any particular diet is beneficial. However, dietary trials of acceptable scientific rigor are almost impossible to conduct in IBS. When constipation is a major symptom, taking bulking agents such as psyllium hydrophillic mucilloid is helpful while a high fibre diet is introduced, which takes several months. However, when bloating and excessive flatus are present, high fibre diets are poorly tolerated. Symptomatic treatment with atropine/ diphenoxylate or loperamide for diarrhea is useful. Small doses of tricyclic antidepressants taken at nighttime, such as 10 mg of amitriptyline, are helpful. These agents may act by reducing the transmission of afferent, painful stimuli in IBS and are useful for similar reasons in the management of patients with NUD.

Old standbys such as trimebutine and mebeverine have proven clinical efficacy in IBS in metaanalyses, without serious side effects. However, predictable patient response to these drugs does not occur, and several weeks of empirical therapy may be necessary in individual patients before efficacy is known (16). Patients with very severe symptoms may require management with other modalities, such as hypnosis, biofeedback or yoga relaxation.

The interesting new hypotheses concerning the pathogenesis of IBS have resulted in encouraging preliminary reports of new drug therapies that now require confirmation in large prospective, controlled clinical trials.

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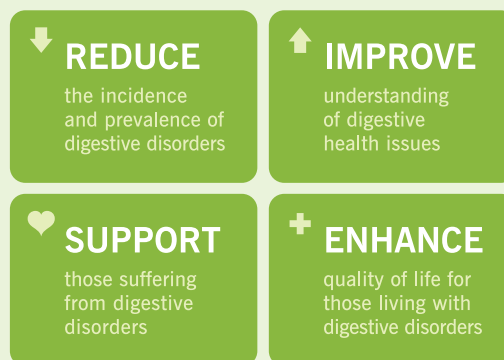
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