MANAGEMENT OF IRRITABLE BOWEL SYNDROME

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Irritable bowel syndrome (IBS) is a common disorder which is associated with abdominal pain, bloating and bowel disorder characterized by loose bowels, constipation or an alteration between these extremes[1]. The disorder affects approximately 15%-20% of the world population[2]. Despite the high prevalence of IBS in the general population understanding of the etiology, pathogenesis and treatment is limited. Although many IBS sufferers do not seek medical care, IBS has been estimated to account for 20% - 50% referrals to gastroenterology clinics[3]. It varies in severity from trivial to incapacitating. The more severe cases are associated with poor quality of life, absenteeism from work, frequent consultation with medical professionals, and psychosocial distress. The cost associated with the diagnosis and treatment is largely sustained by the patient themselves or their employers. The indirect costs are related to the production losses due to morbidity, associated with the pain, suffering and alteration in the patient's quality of life. Hence, it is a major burden on health care resources[4].

Absence of physical findings and diagnostic tests for clinical use has led to the diagnosis of IBS being based on symptom-based criteria for IBS such as Manning, Rome I and II[5]. When used in combination with a detailed history, physical examination, and limited diagnostic testing, these criteria are a valid method of diagnosing IBS. Irritable bowel syndrome is a stable diagnosis. Once initial investigations are negative, fewer than 5% are diagnosed with an alternative organic gastrointestinal disorder. Repeated diagnostic evaluations of patients with recurrent or persistent symptoms similar to their baseline symptoms are not warranted[6]. Anxiety disorders, depressive disorders, and somatoform disorders are the more frequently occurring comorbid conditions. Psychosocial stressors and history of trauma and abuse, play a significant role in the onset and perpetuation of IBS symptoms.

There has been an extensive research on the disease and no proven single etiology or effective treatment has emerged. Possible abnormalities in the processing of sensory stimuli in the "brain-gut" axis lead to the visceral hypersensitivity and secondary motility change. In some patients, a multi-factorial mechanism including stressful life events or other psychological factors contribute considerably. Once a confident diagnosis of IBS has been made, treatment should be based on the predominant symptom while taking into account the severity of symptoms and the degree of functional impairment both physically and psychologically. Most patients with IBS have mild symptoms and education, reassurance, dietary and lifestyle changes, and a therapeutic physician-patient relationship form the backbone of treatment. A smaller number of patients have moderate symptoms, which are typically intermittent, but may at times interrupt their normal activities. There is a predominance of women as compared to men who seek health care services for IBS in the United States and other industrialized societies. However, in our previous studies IBS like symptoms were more frequently experienced by males who out-numbered females[7,8]. This may be attributed to natural reluctance of females to volunteer information regarding their bodily function.

Menstrual cycle-linked differences are observed in IBS symptom reports. Women with IBS tend to report greater problems with constipation and non-gastrointestinal complaints associated with IBS. Serotonin (5-HT3) receptor antagonist and 5-HT4 partial agonist drugs appear to more effectively diminish reports of bowel pattern disruption in women with IBS as compared to men.

The therapeutic management of the IBS is ineffective and not satisfying either patients or practitioners. Building a therapeutic relationship with the patient over time will likely enhance the effectiveness of the prescribed therapy[9].

Both high-fibre dietary advice and the prescription of fibre as a bulking agent are very common in primary and secondary care management of IBS. Irritable bowel syndrome patients with constipation may have delayed intestinal transit. Therefore, fibers that accelerate intestinal transit may be beneficial in these patients. The uncertain benefits reported in several clinical studies, however, have led us to reappraise the value of fibre in irritable bowel syndrome management.

The irritable bowel syndrome remains a therapeutic challenge in part because of the limited understanding of the pathophysiology. The placebo response rate varies in randomized controlled trials from 20% to 70%, and can persist for up to at least one year. It is contentious whether dietary fiber and bulking agents relieve the symptoms of IBS but constipation probably improves. Anticholinergic and antispasmodic agents are of questionable benefit in IBS. Laxatives are used for constipation but probably

poorly control the IBS symptoms complex. Loperamide is superior to placebo in improvement of diarrhoea but not abdominal pain in IBS. A meta-analysis concluded that the tricyclic antidepressants were superior to placebo in IBS, although the individual trial results were variable. Selective serotonin reuptake inhibitors are of uncertain benefit. Tegaserod is a well- tolerated aminoguanidine indole derivative of serotonin that is a partial 5HT4-receptor agonist with prokinetic properties. A therapeutic gain over placebo of 5% to 15% has been observed in constipation-predominant IBS in females. Alosetron is a 5HT3-receptor antagonist that is efficacious in females with diarrhoea-predominant IBS, with a 12% to 17% therapeutic gain. Meanwhile risk of ischaemic colitis is 1 in 350, with very severe constipation occurring in about 1 in 1000 cases.

Research in functions of the enteric nervous system and its interaction with the central nervous system is the basis for the development of emerging pharmaceuticals in therapy of the IBS. These pharmaceuticals include agents such as opioid agonists, psychotropic agents and particularly serotonin receptor modulators. 5-HT (3)-receptor antagonists are highly selective competitive inhibitors of the 5-HT (3)-receptor with negligible affinity for other receptors. They are potent, rapidly absorbed and easily penetrate the blood-brain barrier. They are metabolized by the cytochrome P450-system with half-life varying from 3-10 hours. The 5-HT (3) receptor antagonists, via a central and / or peripheral action, have been shown to reduce secretion and motility in the gut and possess clinical utility in irritable bowel syndrome, and possibly other visceral pain disorders. Tegaserod is a new partial agonist of serotonin 5-HT4 receptors specifically developed for the treatment of nondiarrhoeal forms of IBS. Among its various effects, is the stimulation of the peristaltic reflex with its promotility action appearing to affect the whole length of the gastrointestinal tract. It also appears to improve bloating, a benefit that has not been previously reported for a medication used in IBS. The optimal dose is 6 mg twice daily and the advantage of tegaserod over placebo in different trials varies from 5%-20% with the number needed to treat ranging from 5%-15% depending on the time at which this effect is calculated during the course of a trial.

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