

mission statement

To provide the highest quality and state of the art cutting edge surgical care for patients with diseases of the colon, rectum and anus.

Colorectal Clinic @ NUH

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Operating Hours:

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The Colorectal Clinic at NUH offers specialist care for the complete range of colorectal disorders. We have a multidisciplinary team of specialist colorectal surgeons, medical oncologist and radiotherapists providing comprehensive care for colorectal cancers. We are able to utilize our 3D endorectal ultrasound equipment to accurately assess tumors and focus on sphincter preserving surgery for patients with low rectal cancers. We also offer the modern option of minimally invasive/laparoscopic colorectal surgery. With the aid of our own pelvic floor laboratory equipped with state-of-the-art diagnostic tools, our dedicated team of specialist surgeons can investigate functional bowel disorders like constipation and faecal incontinence and also offer advanced therapy like artificial bowel sphincter implantation and sacral nerve modulation. We also provide expert non-invasive treatments like fibrin glue anal fistula and a one-stop CARET service for hemorrhoids and fissures.

The Colorectal Clinic @ NUH is currently the only unit in Singapore with two female colorectal specialists. Colorectal Clinic @ NUH is part of University Surgical Centre.

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3. Medication

a. Antidiarrhoeals to treat diarrhea

The opiate and opioid analogues diphenoxylate-atropine and loperamide stimulate receptors in the enteric nervous system that inhibit peristalsis and fluid secretion. Loperamide is effective against diarrhea but not pain, in patients with IBS. A bile-acid binder can be added empirically to control refractory diarrhea, and is effective for post-cholecystectomy, diarrhea-predominant IBS.

b. Antispasmodics to treat abdominal pain and discomfort i. Anticholinergics

Several studies have shown that symptoms of IBS do not respond significantly to anticholinergics alone. Side effects are common.

ii. Smooth muscle relaxants

Mebeverine is a phenylethylamine derivative of reserpine that has a direct spasmolytic effect on smooth muscles, with few atropine-like effects. It is useful in patients with abdominal pain. When used together with a bulking agent and an anxiolytic agent this combination has been found to improve symptoms up to 90% of patients,

iii. Peppermint Oil

Peppermint oil appears to have direct relaxing effects on gastrointestinal smooth muscle, so it might act as an antispasmodic agent. However, it relaxes the lower oesophageal sphincter and can cause heartburn.

c. Laxatives

Osmotic laxatives such as magnesium salts, phosphate salts, and polyethylene glycol-based laxatives have been used. Nonabsorbed carbohydrates laxatives such as lactulose and sorbitol are effective but can promote the formation of gas, which many patients find uncomfortable and difficult to expel. Stimulant cathartics like bisacodyl and senna can cause cramping and are associated with tachyphylaxis and dependency and should be avoided long-term.

d. Tricyclic Antidepressants

Tricyclic antidepressants in low doses appear effective for irritable bowel syndrome. Tricyclic antidepressants are recommended for moderate-to-severe irritable bowel syndrome in which pain is prominent or when other therapies have failed. Because of a delayed onset of action, treatment should be continued for 3 to 4 weeks and continued for 3 to 6 months before tapering.

4. Other agents

a. 5-HT₄ selective agonist for IBS with constipation (Tegaserod)

Tegaserod (Zelmac), a drug similar to the prokinetic agent cisapride, is a partial agonist of the 5-HT₄ receptor. It accelerates gastric emptying and small-bowel transit. Tegaserod has been approved by the FDA for use for up to 12 weeks in women with constipation-predominant IBS. It should be reserved for female patients with constipation-predominant IBS who have no response or fibre or laxatives and antispasmodic agents. A recent study on tegaserod on Asian patients suggest that majority of Asian men and women with non-D-IBS or IBS-C will benefit from it.

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5. Stress Management, Psychotherapy and Hypnotherapy

Psychosocial stressors are important triggers for symptoms of IBS and patients who seek treatment for IBS have a greater prevalence of psychological diagnoses. Various techniques such as cognitive behavioral therapy (directed at maladaptive perceptions of illness and behavior), dynamic psychotherapy (directed at interpersonal problems), relaxation and stress management therapy, and hypnotherapy, alone or in combination are reportedly effective for symptoms.

6. Alternative Treatments

a. Probiotics

Probiotics are beneficial strains of bacteria and yeast found in the human gut. However, there is currently no clinical evidence to recommend this as a standard form of treatment.

b. Acupuncture

Many patients with IBS seek relief using acupuncture, a component of Traditional Chinese Medicine (TCM). The Cochrane Collaboration meta-analysis was unable to make any conclusions as to whether acupuncture is more effective and sham acupuncture or other interventions for treating IBS as most of the trials included in the review were heterogeneous in terms of interventions, controls and outcomes measured. TCM does not have a clinical diagnosis of IBS. Instead the TCM approach is different compared to western medicine. From a TCM perspective, management is not based on anatomical pathology, but rather, diagnostics, treatment and choice of acupuncture points are based on syndrome differentiation. For example, a possible reason for constipation is insufficiency of qi and blood and treatment would be geared towards replenishing qi and blood by stimulating points like pishu, weishu, zusanli etc. A different conglomeration of symptoms associated with constipation may be due to excess heat in the stomach and intestines and a different set of acupoints like quchi, hegu will be used.

Points to remember

- It can be a chronic and distressing disorder for patients
- Use the Rome II Criteria and 'red flag' indicators to aid in diagnosis
- Do remember to exclude and not miss out on the more sinister causes of the symptoms
- Patients need a lot of tender loving care and treatment strategies are approached according to symptoms.
- The aim is to empower patients with strategies to cope with their symptoms and not rely on a 'magic pill' as a cure-all

Coming Soon!

Colorectal Cancer by Dr Charles Tsang

our editorial team

Editor in Chief • Charles Tsang

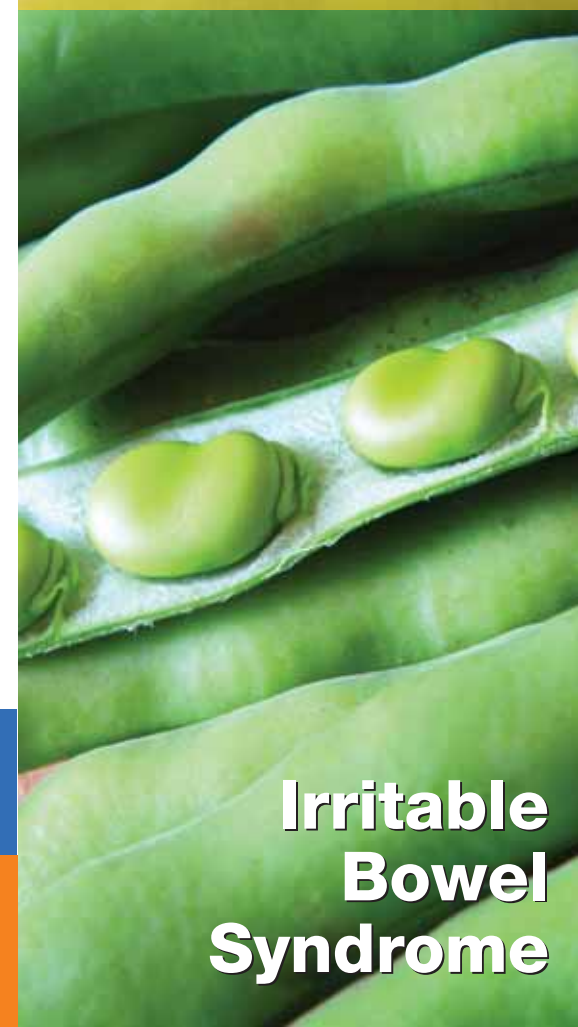
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files

the truth is
down there

UPDATES ON COLORECTAL CONDITIONS

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Irritable Bowel Syndrome

Irritable Bowel Syndrome

Introduction

Irritable bowel syndrome (IBS) is a common gastrointestinal problem characterized by recurrent abdominal pain with bloating, diarrhea or constipation which is not associated with any demonstrable pathology. It can cause quite a bit of distress which will account for increased healthcare use and decreased quality of life. The prevalence in Singapore has been reported to be 8.6%, 22.1% in Taiwan, 6.6% in Hong Kong and 10-15% in the United States and Europe. Women are three times more likely to be affected compared to men. The age of onset varies, but the incidence appears to increase at adolescence and peaks at the third and fourth decades of life.

For management purposes, irritable bowel syndrome can be classified into it according to the predominant bowel habit: Diarrhea-predominant (IBS-D), Constipation-predominant (IBS-C) or IBS with alternating symptoms of diarrhea and constipation (IBS-A).

Diagnosis

The underlying biochemical cause of IBS is not well established and hence there is no specific laboratory test to diagnose IBS. Hence, diagnosis of IBS involves excluding organic conditions (look out for 'red flag' indicators) that produce IBS-like symptoms and then using a diagnostic algorithm to come to a conclusion. Various validated algorithms have been used to aid the physician in reaching a diagnosis ie Manning Criteria, the Rome I Criteria, the Rome II Process, the Kruiis Criteria. The Rome III process was published in 2006. The Rome II criteria are the most commonly used.

Rome II diagnostic criteria for irritable bowel syndrome

At least 12 weeks, which need NOT be consecutive, in the preceding 12 months of abdominal discomfort or pain that has two out of the following 3 features;

- Relieved with defecation; and/or
- Onset associated with a change in frequency of stool; and/or
- Onset associated with a change in form (appearance) of stool

'Red Flag' Indicators

- Rectal bleeding
- Age of onset over 60
- Family history of bowel or ovarian cancer
- Unexplained, unintentional weight loss
- Abdominal, rectal or pelvic masses
- Anaemia
- Raised inflammatory markers

Pathophysiology

The exact cause of Irritable Bowel Syndrome is not known, but altered bowel motility, visceral hypersensitivity, psychosocial factors, an imbalance in neurotransmitters and infection have all be proposed to contribute to the development of irritable bowel syndrome.

1. Altered Bowel Motility

Alterations in the contractility of the bowel have been described in patients with IBS. Psychological, physical stress and ingestion of food can alter the motility of the colon. Motility patterns among patients with IBS are qualitatively similar to healthy individuals, but are exaggerated in response to certain stimuli.

2. Visceral Hypersensitivity

Heightened sensitivity to visceral distension has been described in several studies. Balloon distension studies of the rectosigmoid and ileum have shown that patients with IBS experience pain and bloating at balloon volumes and pressures that are significantly lower than those that induce pain in control subjects. Some have suggested that hypervigilance rather than true visceral hypersensitivity is responsible. Anecdotally, IBS patients are more sensitive to manipulation and air insufflation during colonoscopy.

3. Psychosocial Factors

Psychological stress can alter motor function in the small bowel and colon, both in normal subjects and in patients with the irritable bowel syndrome. In addition, any chronic illness has psychological consequences on one's general well-being, sense of control over symptoms and daily function status. Raising awareness of this can help the patient cope better with the symptoms. Coping better can help reduce stress and break the vicious cycle.

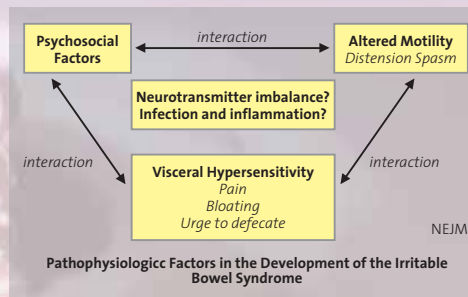
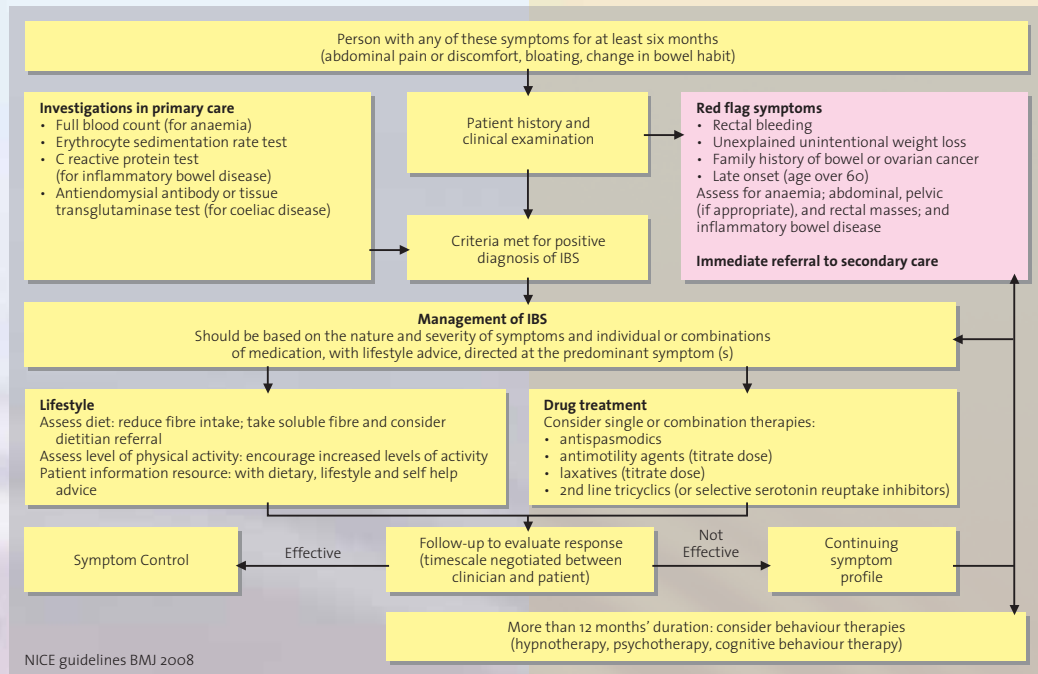
4. Serotonin and Other Neurotransmitters Imbalance

Five percent of serotonin (5-hydroxytryptamine, 5-HT) is located in the central nervous system, and the remaining 95 percent is in the gastrointestinal tract, within enterochromaffin cells, neurons, mast cells and smooth-muscle cells. When released by enterochromaffin cells, serotonin stimulates extrinsic vagal afferent nerve fibres and intrinsic enteric afferent nerve fibres, resulting in physiological responses such as intestinal secretion and peristaltic reflex and in symptoms such as nausea, vomiting, abdominal pain and bloating. Other neurotransmitters may also be implicated in IBS.

5. Infection and Inflammation

There is evidence that inflammation of the enteric mucosa or neural plexuses initiates or contributes to symptoms associated with irritable bowel syndrome. Mucosal inflammatory cytokines may activate peripheral sensitization or hyper motility. 30 percent of patients with IBS report their symptoms began after an episode of gastroenteritis and similarly, 30 percent of patients develop IBS symptoms after the infection has resolved.

The National Institute of Health and Clinical Excellence (NICE) UK has proposed a treatment algorithm to guide their doctors in the diagnosis and treatment of irritable bowel syndrome.



IBS. Teach the patient about modification of lifestyle, physical activity, diet, coping strategies and using medication targeted at symptoms (eg anti diarrhoeals for diarrhea and laxatives for constipation)

Treatment is essentially symptomatic, aimed towards the relief of symptoms. Hence patients are classified into various subtypes based on their predominant symptom:

- Pain predominant
- Diarrhea predominant
- Constipation predominant

Treatment Modalities

1. Diet

A diary of food intake and symptoms can be useful in identifying foods that may trigger off symptoms. Some patients benefit from avoiding or limiting their intake of foodstuff like caffeine, alcohol, fatty-foods, gas-producing vegetables, milk etc. Being aware of this can give the patient a sense of control of their symptoms. Be careful of over-zealous elimination such that nutrition is inadequate.

2. Fibre

Fibre and bulking agents have been traditionally used for IBS patients with constipation. However, a sudden increase in fibre can give rise to symptoms like bloating.

Treatment

Approach to treatment

As irritable bowel syndrome is a disorder involving bowel motility and sensation that is triggered by psychosocial triggers, treatment is most successful if a multi-component, comprehensive approach is used. Explain and reassure patients about the origin of their symptoms and let patients take an active approach to management which is overseen by their physician.

As diet and lifestyle may trigger or exacerbate symptoms, explain the importance of self help in effectively managing