

Irritable Bowel Syndrome: The Practical Approach to Diagnosing Irritable Bowel Syndrome (IBS) in the Patient with Abdominal Bloating

Dr Vikneswaran Namasivayam, Consultant,
Department of Gastroenterology and Hepatology, Singapore General Hospital;
Adjunct Assistant Professor, Duke-NUS Graduate Medical School

CASE VIGNETTE

A 25-year-old lady complains of abdominal discomfort and bloating mainly over the epigastrium lasting for several months. This sometimes occurs after meals. She was previously prescribed omeprazole twice daily but there was no improvement. Physical examination was normal.

What is her diagnosis?

How would you manage her condition?

INTRODUCTION

The patient presenting with abdominal bloating is a common and often challenging problem encountered by physicians and gastroenterologists alike. Abdominal bloating is often due to either functional dyspepsia or irritable bowel syndrome, both being common, benign conditions often characterised by chronic symptoms.

However, the diagnosis is often challenging as there is no single investigation that allows for the diagnosis to be either definitively made or excluded and the possibility of a sinister diagnosis in the occasional patient.

As the diagnosis of irritable bowel syndrome is made based on the symptom profile (*See Rome III Diagnostic criteria*) below, a good history is crucial to the appropriate management of patients.

Rome III Diagnostic Criteria for Irritable Bowel Syndrome (IBS)

Recurrent abdominal pain or discomfort at least three days/month in the last three months associated with **two or more** of the following:

- Improvement with defecation
- Onset associated with a change in frequency of stool
- Onset associated with a change in form (appearance) of stool



SALIENT POINTS IN HISTORY TO NOTE

Relation to defecation and bowel habits

The key feature of IBS is the relation of abdominal discomfort to defecation. The discomfort and bloating is typically **relieved with defecation**. The discomfort is typically associated with either diarrhoea or constipation, sometimes both. The relation to bowel habits distinguishes IBS from dyspepsia.

Location and relation to meals

IBS discomfort need not occur in the lower abdomen. IBS is often characterised by an epigastric location of discomfort in Asian patients. Patients with IBS may also report discomfort after meals, which may be treated with acid suppressive medication for dyspepsia. The key feature in the history is the improvement with defecation and the association with an altered bowel pattern.

IBS with diarrhoea (IBS-D) or IBS with constipation (IBS-C)?

The treatment of IBS is dependent on whether the patient has predominant diarrhoea or constipation. The distinction between IBS-C and IBS-D is made based on the form and consistency of the stool rather than the frequency of bowel movements – i.e. patients with constipation may have multiple bowel movements characterised by unsatisfactory evacuation that may be misclassified as diarrhoea.

The stool form is best characterised using the **Bristol Stool Chart**. This is a pictorial description of different stool types that may be easily downloaded from the Internet. It serves as a useful aid shown to the patient to describe their stool form. Stool forms at either ends of the spectrum correlate with constipation and diarrhoea and changes in form and consistency can be easily elicited even if the patient has difficulty describing in words their stool characteristics.

Red flags

A 'red flag', refers to a symptom or finding that is not explained by IBS, which calls for additional investigation to exclude an alternative diagnosis. A more thorough evaluation to exclude sinister causes has to be considered in patients with alarm symptoms, including a referral to a gastroenterologist for endoscopy. Though the clinical utility of such a strategy is unproven, it remains a prudent course of action.

Red flag symptoms

- Rectal bleeding
- Iron-deficiency anaemia
- Weight loss
- Family history of colon cancer, precancerous polyp, inflammatory bowel disease
- Fever
- Vomiting
- Age of onset after age 50
- Nocturnal symptoms
- Change in the patient's typical IBS symptoms (e.g. new and different pain)
- Recent antibiotic use



PHYSICAL EXAMINATION

Physical examination is directed towards excluding an alternative diagnosis that would warrant more intensive evaluation. Objective causes of abdominal distension (i.e. intestinal obstruction, abdominal masses, ascites), malnutrition, wasting, pallor, rectal bleeding, jaundice, lymphadenopathy and dehydration are actively sought.

MANAGEMENT

General principles

Successful management relies on a good doctor-patient relationship that addresses the patient's ideas, concerns and expectations. As the symptoms are often chronic, patients may benefit from reassurance that, while the symptoms may be genuinely distressing, absence of an organic pathology indicates a normal life expectancy.

It is worth emphasising that symptoms are often chronic with periodic exacerbations. Recognition of stressors (diet, emotional stress) may aid coping with avoidance techniques. Patients should be screened for underlying psychological comorbidities that may need to be addressed concurrently. Patients who remain unresponsive to simple measures require further specialist evaluation.

Indication for GI referral

- Red flags
- Endoscopy evaluation where needed
- Unresponsive to treatment
- Consideration for second line management

IBS with constipation

A large number of patients may be managed with lifestyle advice and the judicious use of bulk-forming laxatives. High doses of fibre may paradoxically increase bloating in some patients. Patients are advised to not to ignore 'the call of nature'. Consumption of a high-calorie meal (breakfast) and caffeinated beverage may augment the urge to defecate and may be useful in some patients as a simple strategy to promote bowel movement. Newer drugs used in the treatment of IBS-C would include prucalopride, lubiprostone and linaclotide.

A small proportion of patients may have a benign condition known as **pelvic floor dysfunction** that may mimic IBS-C. The pelvic floor comprises of muscles that support the pelvis like a sling. Pelvic floor dysfunction is a condition where the patient is unable to control the pelvic floor muscles to achieve a satisfactory bowel movement. This is characterised by difficulty in voiding stool, the use of digital manoeuvres or rocking movement while sitting on the commode to aid evacuation and a sense of incomplete evacuation often necessitating repeat visits to the toilet.

The diagnosis can be made with a digital rectal examination and is confirmed with anorectal manometry. The treatment is **biofeedback** where a therapist works with the patient to improve muscle coordination by using special sensors to monitor the pelvic floor muscles as the patient attempts to contract or relax them.

IBS with diarrhoea

Patients may be initially treated with anticholinergics for their anti-spasmodic effects or anti-diarrhoeal medication such as loperamide. Antibiotics (i.e. rifaximin) and probiotics may be used in selected instances for IBS. Tricyclic antidepressants (imipramine, amitriptyline) work at doses lower than those used to treat depression but require regular use and may not work when taken only on demand.

Patients with refractory symptoms may require colonoscopy to exclude other conditions such as inflammatory bowel disease or microscopic colitis. Recent antibiotic use raises the prospect of *Clostridium difficile* infection.

CASE VIGNETTE: CONCLUSIONS

On further questioning, the patient's epigastric discomfort and bloating was consistently relieved with defecation and was associated with constipation. She had recently changed jobs and her new job required her to be at work early morning. Hence she had started to skip breakfast and defecation in the morning. Her full blood count was normal. She was placed on fibre and counselled on lifestyle habits and reviewed shortly after. Her symptoms had completely resolved during review.



Dr Vikneswaran Namasivayam is a Consultant Gastroenterologist with a sub-specialty interest in reflux, IBS, screening colonoscopy for colorectal cancer and endoscopic resection of advanced polyps and early GI cancers. He is actively involved in research to understand why a sedentary lifestyle leads to cancer.



GPs can call for appointments through the GP Appointment Hotline at 6321 4402 or scan the QR code for more information.



Knowledge Improves Compliance

Pharmacists lead the way to improve medication adherence

Managing chronic conditions and multiple medications are unfortunately part and parcel of daily life for most elderly people. For some, poor understanding of their condition or medications, actual or perceived side effects of their medications, forgetfulness and cost issues may result in poor adherence to medication.

This ultimately could lead to poor disease control, and subsequently complications associated with their medical conditions. Such complications could cause a huge burden to the patients in terms of quality of life and high medical expenses. In serious cases, it may even lead to hospitalisation and loss of income.

Keeping that in mind, the SingHealth Polyclinics Department of Pharmacy implemented the Medication Review Service (MRS) in SingHealth Polyclinics in 2009. The effectiveness of MRS was validated in a recent study published in the Proceedings of Singapore Healthcare.

Two hundred and forty patients from four SingHealth polyclinics were recruited for the study. The effectiveness of medication review in improving their knowledge of and adherence to chronic medications was evaluated using a two-part questionnaire, which was carried out before the medication review and during follow-up.

Of the 195 patients who completed the follow-up, 93.8 per cent demonstrated medication knowledge deficits. About 70 per cent of study patients reported non-adherence prior to MRS but this figure was almost halved to 37 per cent following intervention. This helped pharmacists conducting the review better understand the root cause of the non-adherence, and enabled them to devise targeted action plans to resolve it.

"During the review sessions, pharmacists also provide practical solutions to address patients' concerns, such as advising them on ways to cope with side effects or setting alarms in the case of forgetful patients," shared Ms Bandy Goh, Clinic Pharmacy Manager, SingHealth Polyclinics, and lead author of the study.

On many occasions, pharmacists may also recommend alternative medications to doctors if patients experience intolerable side effects or have affordability issues with the medications prescribed.

With tertiary institutions increasingly right-siting clinically stable cases of chronic conditions to primary care physicians, they are also well-placed to perform medication reviews. Primary care physicians can educate patients on their medications and listen to their feedback so that appropriate interventions can be made without delay.

