Irritable bowel or irritable mind?

Medical treatment works for those with clear diagnosis

R C Spiller

This is the fourteenth in a series of articles examining some of the difficult decisions that arise in medicine

Imprecise and inconsistent definition of the irritable bowel syndrome has created much confusion. A clear definition has, however, recently been agreed.¹ The Rome consensus states that symptoms should be chronic and recurring and consist of abdominal pain that is clearly related to bowel function, being either relieved by defecation or associated with a change in frequency or consistency of stool with or without disturbed defecation, which is defined as two or more of the following: altered stool frequency, altered stool form (hard, loose, or watery), altered stool passage (straining, urgency, or feeling of incomplete defecation), and passage of mucus. The above symptoms are usually associated with bloating or a sense of abdominal distension. The syndrome excludes painless constipation and diarrhoea and also chronic abdominal pain that is unrelated to bowel movement in which psychiatric features predominate.

Irritable bowel symptoms are experienced by 8-22% of the population,² but most learn to cope with their symptoms and less than one third actually consult a doctor. Consultants differ from non-consultants in being less easily reassured and more anxious, depressive, and prone to multiple complaints.²⁻⁴ This pattern is also true for patients with hypertension and lactose intolerance.⁵ Neuroticism does not determine the symptoms but simply whether the patient will consult.² All patients with obscure abdominal pain are anxious, and psychiatric features therefore cannot be used to distinguish irritable bowel syndrome from other gastrointestinal diseases.³

Identifying abnormalities

Although the symptoms suggest abnormal intestinal motility, showing clear abnormalities has proved difficult for several reasons. Firstly, many studies were done on poorly defined and heterogeneous groups of patient. Secondly, most of the symptoms occur erratically throughout the day, yet many studies analysed only 30 minutes' worth of data in an artificial laboratory setting with a probe in the rectum. Linking spontaneous symptoms to abnormal motor patterns was only possible when technological advances allowed intestinal pressure patterns to be recorded over 24 hours in ambulatory subjects. And in 1978 Thompson *et al* showed a clear correlation between episodes of abdominal pain and prolonged irregular jejunal contractions in a 72 hour ambulatory recording from a 46 year old patient with the irritable bowel syndrome.⁶ Since then there have been several studies which have related abnormal ileal and jejunal motility to abdominal discomfort.^{7,8} Discrete clustered contractions occurring every minute, often going on for 30-60 minutes, are associated with pain^{7,8} and were in most,^{7,8} but not all,⁹ studies unique to patients with the irritable bowel syndrome. Patients with the irritable bowel syndrome in whom the main symptom is diarrhoea also have more rapid small bowel transit⁹ and show an earlier return of fasting activity postprandially compared with normal.⁸

Given the importance of disordered defecation it is not surprising that most early studies concentrated on colonic motility. Increased basal rectosigmoid activity is an unreliable feature of the syndrome, varying greatly. Clearer differences between patients and healthy controls can be seen if the rectum is stimulated either by emotional upset or by balloon distension.¹⁰ Such studies show that patients with the irritable bowel syndrome are more sensitive to distention of both small and large bowel,^{8,10,11} experiencing pain at a lower threshold than health controls (fig) despite having a higher threshold for cutaneous pain. Much attention is now focused on the idea that abnormal visceral sensitivity may cause some of the symptoms of the irritable bowel syndrome. Indeed, recently it has been shown that some patients experience powerful but normal motor patterns as painful.¹²

Distending volume required in rectal balloon to elicit sensation of urgency in 28 patients with diarrhoea predominant irritable bowel syndrome, 27 with constipation predominant irritable bowel syndrome, and 30 healthy controls

Treatment strategies

The chemistry of food is complex, and it is becoming clear that there are many sugars within certain vegetables which are poorly absorbed. The best example here are perhaps fructose and sorbitol, both of which can cause obscure diarrhoea. Malabsorbed material traps fluid within the small bowel, produces symptoms of bloating and colic, and when fermented within the colon may produce excessive flatulence and abdominal pain. Such a phenomenon may underlie the response of nearly half of patients to an exclusion diet consisting of one meat, one source of carbohydrate, and one fruit.¹³ Most patients whose symptoms resolved on such a diet were able to identify one to five foods, most commonly dairy and wheat products, that reproduced their

symptoms when reintroduced into their diet. This practical approach to food intolerance supports earlier more rigorous studies in which double blind challenges with food instilled down nasogastric tubes were proved to reproduce symptoms.¹⁴

About 10% of all patients with the irritable bowel syndrome develop symptoms abruptly after an acute bout of diarrhoea.¹⁵ This postdysenteric irritable bowel syndrome has a good prognosis, most patients being free of symptoms within five years.¹⁵ The mechanism is uncertain, but in a small number of patients malabsorption of bile salts after salmonella ileitis may be responsible.¹⁶ The resulting bile salt catharsis responds well to cholestyramine, aluminium hydroxide, or, more palatably, loperamide.

With a clearer, more restrictive definition of the irritable bowel syndrome that excludes people with a predominantly psychiatric problem, the success of management has improved. Doctors treating such patients with reassurance and dietary advice (mainly to increase fibre content) together with bulking agents such as ispaghula and where necessary antispasmodics or antidiarrhoeal drugs can expect 85% of patients at six weeks and 68% after five years to be free of symptoms or have only minor symptoms.¹⁵ Only a few patients need the more intensive reassurance provided by hypnotherapy or other forms of psychotherapy.

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Psychological treatment is essential for some

Francis Creed

Strong evidence exists that the irritable bowel syndrome has an important psychological component. Firstly, about half of patients with the irritable bowel syndrome in a hospital clinic have psychiatric disorder when assessed by research criteria.¹ This is two or three times greater than the prevalence among patients with organic gastrointestinal conditions such as peptic ulcers or inflammatory bowel disturbance and healthy controls (<20%),¹ suggesting a strong association between the irritable bowel syndrome and psychological disorder. Although anxiety, depression, and sexual problems might be the consequence of persistent abdominal symptoms, they are not found to the same extent in patients with organic diseases that also lead to persistent abdominal symptoms.² The anxiety and depression might explain attendance at the hospital rather than the occurrence of the symptoms,^{3,4} but people attending hospital also have much worse intestinal symptoms than people with the irritable bowel syndrome in the community, and the anxiety almost certainly exacerbates the pain and bowel dysfunction.⁵

Role of stress

Secondly, two thirds of patients with the irritable bowel syndrome have experienced a severe social stress such as bereavement, marital separation, or major argument leading to a broken family relationship before the onset of the abdominal symptoms. This compares with about a quarter of patients with organic disease and healthy controls.⁶ The pattern of social stress before the onset of the irritable bowel syndrome is similar to that preceding deliberate self harm, where precipitating stress is well recognised.

Even in patients with no overt anxiety or depression, onset of the irritable bowel syndrome is still preceded by stressful life events. Not all studies have confirmed this result, but these negative studies have measured life events before attending a clinic rather than before the onset of symptoms and have often used inadequate measures of life events.

Success of psychological treatment

Thirdly, patients with the irritable bowel syndrome attending the clinic for the first time have been randomly allocated to group stress management or pharmacological treatment.⁷ Although the short term response was similar, at six month follow up patients randomised to psychological treatment showed a significantly better response, with patients receiving drugs having returned to their initial symptom level. This result strongly suggests that the core problem is a psychological disturbance.

About 15% of patients with the irritable bowel syndrome do not respond to routine treatment with bulking agents, antispasmodics, and support. Most such patients respond to dynamic psychotherapy or hypnotherapy,⁸⁻¹⁰ and the reduction of bowel symptoms closely follows the reduction in psychological symptoms, indicating a clear link between the two.¹⁰

In their original description of the irritable colon, Chaudhury and Truelove observed that patients who had no history of dysentery before the onset of bowel symptoms but who did have evidence of psychological problem had the worst two year outcome.¹¹ Their case examples indicated that such patients might recover when their circumstances changed. A middle aged man

Department of Psychiatry,
Rawnsley Building,
Manchester Royal
Infirmary, Manchester
M13 9WL
Francis Creed, professor of
community psychiatry