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Constipation and its management

Options go beyond laxatives and include behavioural treatment as well as new drugs

Although slow to emerge, major advances have occurred in understanding the causes and management of constipation. It now receives the attention deserved of a symptom that affects a quarter of the population at some time. Most important is the recognition that different pathophysiological processes can result in the final common symptoms of decreased bowel frequency or impaired rectal evacuation. Different clinical syndromes require different therapeutic approaches.

Bowel frequency is influenced by several factors including intake of dietary fibre, emotional make up, and psychological morbidity. Introspective individuals have a lower bowel frequency and produce less stool than extroverts. Infrequent bowel actions in the absence of symptoms can be regarded as part of the normal spectrum of bowel frequency. Low bowel frequency is more common in women.

Controlled cross sectional studies have shown that psychological morbidity is commonly associated with severe constipation.[1] In some patients it is the key causative factor. Other factors include childhood problems such as sexual or physical abuse, loss of a parent through death or separation, or disturbed toileting behaviour. Underlying depression is another cause. For some the gut is their "outlet valve" for the normal stresses of living. The pathways between brain and gut that link emotions to bowel function have been largely characterised and shown to involve cerebral corticotrophin releasing factor and efferent autonomic pathways. Although psychological factors should be sought at initial assessment, in some patients they are less important. Not all patients have a psychological "skeleton."

The distinction as to whether a patient has a normal diameter or dilated large bowel is of practical importance. Severe intractable constipation with resistance to laxatives in the presence of an apparently normal (non-dilated) colon is seen most commonly in women of reproductive age. When transit is slow the key physiological abnormality is diminished colonic propulsive activity. There are associated changes in upper gut transit and sensory function. Although neural abnormalities can be shown in the colon, such as changes in the pacemaker cells of Cajal, these may be secondary to chronic ingestion of laxatives. The reversibility of impaired function by behavioural treatment[2] implies that neural changes are often secondary.

Constipation is now recognised as an important symptom in a range of patients' groups with other primary pathology. Almost all patients with spinal injury experience constipation; lack of bowel control is one of their most distressing symptoms.[3] It is also common in patients with multiple sclerosis. Patients with mild disease can be helped by behavioural treatment, which shows that in patients with neurological disease bowel dysfunction often has a reversible component.

Patients with a dilated bowel constitute a different clinical problem. Those with a dilated rectum and faecal impaction—so called idiopathic megarectum—are usually teenagers or young adults of either sex.[4] They have often soiled since childhood. In some the problem has a behavioural basis, whereas in others there may be subtle neuromuscular abnormalities of the gut. Constipation with faecal impaction is also seen in elderly patients, especially those in care. Poor general health, impaired mobility, inadequate toilet facilities, and drugs may all contribute. Patients with dilation throughout the gut are rare and they usually have a discrete abnormality of enteric nerves or muscle, leading to impaired propulsion. In such patients with chronic intestinal pseudo-obstruction, constipation is only part of a complex mix of symptoms including pain, vomiting, and nutritional impairment.

For people with mild longstanding constipation investigations are not required, and dietary management is usually sufficient to relieve symptoms. When chronic constipation is more severe, detailed consideration of likely causes and other treatments is warranted.

Many patients with mild constipation can be managed with simple bulking agents or laxatives. After thousands of years of empirical use of such agents, prescribing can now be based on evidence from controlled trials. In elderly patients with resistant constipation, a stimulant such as senna, possibly combined with a bulking agent, is more effective and cheaper than lactulose.[5] Polyethylene glycol based laxatives have recently been shown to provide long term benefit in patients with idiopathic constipation and faecal impaction.

For many patients, however, laxatives do not provide sustained relief of symptoms. In addition increasing dietary fibre has been shown to worsen symptoms in many patients by causing increased bloating without an improvement in bowel function.[6]

Behaviour therapy, including biofeedback (teaching the patient to normalise pelvic floor function while

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watching real time feedback about sphincter function) and habit training, has become established as the most effective form of treatment for patients with either slow transit or impaired evacuation, when traditional treatments have failed.[2] Behavioural treatments comprise a "package" of care, including exercises focused on the gut, help in coming off laxatives, and psychological support. Such treatment has been shown to improve symptoms, transit time through the gut, psychological wellbeing, and quality of life, as well as leading to reduced use of laxatives.[2 7 8] It has been shown to be effective in patients with slow gut transit, impaired rectal emptying, constipation after childbirth or pelvic surgery such as hysterectomy, solitary rectal ulcer from the trauma of straining, rectocele (anterior rectal wall bulge from repeated straining), and in patients with mild degrees of neurological disease such as multiple sclerosis. Long term follow up of cohorts of patients has shown that for most of these conditions about two thirds of patients are helped.[7]

For those who do not benefit from simple bulking agents, laxatives, or behavioural treatments, new pharmacological approaches may offer help. The neurochemical basis for peristalsis is now better appreciated and known to involve 5-hydroxytryptamine4 (serotonin type 4) receptors.[9] In contrast to laxatives, which work via a luminal mechanism, the newly developed 5-hydroxytryptamine4 agonists are absorbed in the small intestine and induce peristalsis through a systemic mechanism. Tegaserod and prucalopride are two such drugs; the former is licensed in the United States but not in the United Kingdom or most of Europe. The latter is still under development.

Patients with idiopathic megarectum should have their bowel emptied completely before titrating an osmotic laxative.[4] Such a laxative may be required in the long term, although behavioural treatment seems also to help some of these patients.

Surgery was commonly used in the past to treat patients with intractable constipation, such as young women with severe idiopathic constipation. The variable and unpredictable results of colectomy,[10] together with the success of conservative treatments, has made this necessary only rarely. When surgery is being considered, new techniques, such as sacral nerve stimulation, may modify bowel neuromuscular control while avoiding irreversible bowel resection.[11] This treatment involves chronic neural stimulation via percutaneously placed fine sacral electrodes.

The paradigm of a drug or operation for every condition needs broadening when treating constipation. When simple treatments have failed and specialist treatment is sought, broadly based multidisciplinary teams need to be able to offer more than laxatives and surgery. It might be argued that such a trivial symptom is not deserving of such use of resources. However, patients with functional gut symptoms have impaired quality of life and consume a large amount of healthcare resources. While relieving symptoms, effective treatments are also likely to be cost effective.

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General practitioners with special clinical interests

A potentially valuable asset, which requires evaluation

The NHS Plan called for the introduction of 1000 "specialist general practitioners" to establish clinics in community settings for carefully selected patients.[1] A key aim is to improve access in specialties that have particularly long waiting times, such as otorhinolaryngology, dermatology, and ophthalmology. Theoretically at least, hospital consultants will then be able to offer faster access to patients with more complex problems as more straightforward cases are diverted to clinics run by general practitioners with special clinical interests.

The success of this policy will depend on recruiting and developing a cadre of general practitioners with the necessary knowledge and skills to provide specialist care. It will also depend on developing and implementing appropriate selection criteria to ensure that patients see a specialist—be it a general practitioner or a hospital consultant—who is equipped to deal with their clinical problem. This in turn raises three important questions. How do we ensure the quality of a general practitioner specialist service? Will the services be clinically effective and cost effective? What will be their impact on the dynamics of outpatient specialist care?

General practitioners with special clinical interests are not a new breed.[2] Many work as clinical assistants in

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