By Eamonn Brady MPSI

Constipation

Symptoms, causes & complications

Constipation describes infrequent bowel movement, often with hard, dry stool that is difficult to pass. It may be associated with bloating, straining and pain. It is caused by inadequate muscle contraction or over absorption of water. Constipation is thought to affect approximately 20 per cent of the population. It can be a symptom of many serious illnesses; although once these are ruled out its management can be quite straightforward, involving both dietary interventions and laxatives. Constipation increases with age and females are twice as likely to suffer from constipation as males.

Symptoms

Though there is huge variance in frequency of bowel movement between individuals. Less than three bowel movements per week is generally defined as constipation. Other symptoms of constipation can include straining on passing stools, lumpy or hard stools, a feeling of incomplete evacuation and a feeling of a blockage.

Most common patient profile

Self-reported constipation in the United States and the United Kingdom is more prevalent in women, nonwhites, and those over age 60. It is more common in individuals with little daily physical activity, low income, and poor education.

Causes

Medical Conditions
The causes of constipation are often unknown, but it may also be due to a medical condition or a side effect of medication. Diseases and conditions associated with constipation include **endocrine disorders** such as diabetes mellitus and low thyroid levels, **neurological diseases** such as multiple sclerosis, Parkinson's disease and Hirschsprung's disease (a condition in which the nerves in the colon which allow normal bowel function are absent), **blockage** of the intestinal tract (eg) Tumour, **spinal injuries** and **irritable bowel disease** (IBS).

Constipation in diabetes mellitus is due to nerve damage in the intestinal tract (peripheral neuropathy). The high prevalence of constipation in multiple sclerosis and Parkinson's disease may be worsened by physical inactivity or the use of medications with constipating side effects. Patients with IBS alternate between bouts of diarrhoea and constipation. Electrolyte abnormalities such as high levels of calcium or low levels of potassium can also cause constipation.

Slow transit constipation is a less common form of constipation. It affects about 1 in 3000 of general population and usually begins in childhood. Its cause is unknown. It runs in families and has no cure. In slow transit constipation, the nerves and muscles in the colon are quite unresponsive, resulting in slower colonic motility.

Medication
Medication which cause constipation include antacids of aluminium and calcium, opioid painkillers (e.g. codeine, tramadol) antidepressants (e.g. amitriptyline), anti-epilepsy medication (e.g. phenytoin), blood pressure medication (e.g. amlodipine, doxazosin), iron supplements and

diuretics used for heart disease and high blood pressure (e.g. frusemide). Some antipsychotic medication (e.g. Risperidone) may cause constipation by causing a condition called magacolon (enlarged colon). Also, long term use of laxatives causes secondary constipation by causing "lazy bowel".

Lifestyle
A diet low in fibre and not drinking enough fluids commonly causes constipation. Lack of exercise is associated with constipation. Ignoring the urge to pass stool over a long period can result in chronic constipation. A sudden change in schedule such as travel may result in constipation. Constipation is common during pregnancy. This is due to hormonal changes during pregnancy and the growing baby putting pressure on the bowel. There is more information about the treatment of constipation in pregnancy in my article on constipation management and treatment.

Complications

Complications may include haemorrhoids, anal fissures (tears of anal skin which may lead to bleeding) and rectal prolapse (protrusion of the rectum through the anus).
These conditions may require surgery. Another complication, called faecal impaction, may occur when the rectum and bowel become so packed with faeces that they cannot eliminate it. This requires treatment with an agent that softens the impacted faeces, allowing their manual removal. This may be taken orally or by enema.

Patient assessment

Doctors generally do not undertake blood tests (including serum calcium and thyroid function tests), X rays or endoscopy in the routine evaluation of patients with constipation without alarm symptoms. However in cases with "alarm symptoms", the doctor may decide to undertake further tests. "Alarm symptoms" include blood in stools, rapid weight loss, a family history of colon cancer or inflammatory bowel disease, anaemia, or rapid onset of constipation in the elderly. These "alarm symptoms" can be a sign of a more serious problem such as bowel cancer.

The doctor will take a medical history, asking questions regarding diet, the timing and nature of symptoms, the person's age, associated features such as mucus or blood in the stools and weight loss. The doctor may perform a rectal examination in cases of concern. This will identify haemorrhoids (which may be caused by constipation) and impaired sphincter function.

Prevention, management & treatment

Management

Explanation of normal rhythm

Your pharmacist or doctor can give you an explanation of normal bowel habits. Passing stools when the urge occurs is important. It is important to obey normal post-meal increases in colonic motility and hence to defecate after meals. In simple terms, your body's natural response after you eat is to give you the urge for a bowel movement. It is important to respond to this urge. This is especially important if you suffer from constipation as you will find it easier to pass stools after meals. You will also find it easier to pass stools in the morning when colonic motor activity is highest.

Stabilisation of medical condition

If a medical condition is the underlying cause of constipation, then the correction of the underlying cause is the first step to relieving constipation. (eg) diabetes, low thyroid level.

Dietary Fibre

Dietary fibre and bulk laxatives such as ispaghula husk (Fybogel®), together with adequate fluids, are the most effective approach to therapy. Bulk forming laxatives are of particular value in those with small hard stools. Adequate fluid must be maintained to avoid intestinal obstruction. Also beneficial are foods (and their juices) that contain sorbitol and fructose such as apples, peaches, pears, cherries, raisins, grapes, and nuts. People with poor dietary habits may add raw bran (two to six tablespoons with each meal) followed by a glass of water or another beverage. Consuming large amounts of fibre can cause abdominal bloating or flatulence; this can be reduced by starting with small amounts and slowly increasing according to tolerance and efficacy. Soluble fibre (oats and linseeds) will cause less bloating and flatulence than insoluble fibre (wholemeal breads, high-bran cereals, wholegrain brown rice). The best general diet advice to prevent constipation is to eat a well-balanced, high-fibre diet that includes beans, bran, whole grains, fresh fruits, and vegetables.

Other laxatives

People who respond poorly to or who do not tolerate fibre may require laxatives other than the bulk forming agents. The risk of side effects is minimal if they are not abused. Stimulant laxatives include over the counter medicines such as bisacodyl (Dulcolax®) and senna (Senokot®). They increase intestinal motor activity. They are meant for short term use and excessive will cause side effects, including low potassium levels, protein loss from intestines, and salt overload. Overuse is common in Ireland, especially among the elderly population. Over use causes lazy bowel which makes the constipation worse. This leads to a vicious circle. This is because as long term use makes the constipation worse, people end up using more and exacerbating the problem.

Lactulose is an osmotic laxative that retains fluid in the intestines by osmosis. It requires 24 to 48 hours to achieve its effect. Brands available over the counter in Whelehans include Duphalac® and Laxose®. Dosage is initially 15ml twice daily and then adjusted according to response. Studies found strong evidence that lactulose is effective in treating constipation. Unlike many laxatives, long term use of lactulose is safe in all patients including the elderly. Despite the fact it is a synthetic sugar, it is safe in diabetics as it is not absorbed into the blood stream like natural sugars. The only caution to take is in patients with reduced kidney function as excess dosage of lactulose can result in dehydration and high sodium levels.

Movicol® and Laxido® are prescription only versions of osmotic laxatives. Stool softeners such as docusate sodium (e.g. Fletchers® enema) work by allowing water to more easily enter the stool. These agents have few side effects but are less effective than other laxatives. There is little evidence to support their use in long term constipation.

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Use of Laxatives in the elderly

According to Dr Roslyn Tarrant, PhD, dietician at Crumlin Hospital, Dublin, long-term laxative use is sometimes inevitable in the elderly, but ideally should be avoided where possible. Implications of long-term use include high loss of potassium, faecal impaction and encouragement of a lazy bowel, explains Dr Tarrant. “However, if laxatives are taken appropriately, in their correct doses etc., these issues should be avoided,” she advises. Dr Tarrant explains that the first line of management of constipation should be nutritional management. “This includes ensuring an adequate fibre intake (insoluble and soluble) as well as adequate hydration. Also encouraging mobility and daily activity is vital.”

Treatment of severe constipation

Patients with a faecal impaction (complete blockage) are generally manually disimpacted by the doctor under local anaesthetic. Lactulose or Movicol® solution may be given after bowel cleansing to produce one stool at least every other day. If all other treatments fail, surgery may be required. Surgery is only considered if the patient has chronic, severe, and disabling symptoms from constipation that are unresponsive to medical therapy.

Constipation during pregnancy

About one in five women suffer from constipation during pregnancy. Constipation during pregnancy is due to the body producing more of the hormone progesterone. In pregnancy, the body produces more progesterone to allow the muscles relax and allow the baby to grow. However progesterone also relaxes muscles of the intestines so it becomes less efficient at removing food and waste and hence causes constipation. The constipation can be exacerbated by the growing baby putting pressure on the bowel. To reduce constipation during pregnancy, it is important to increase fibre in the diet and increase fluid intake. 7 to 8 glasses of fluid a day is recommended. 20 to 30 minutes of exercise three times per week can help. Non-impact exercise such as walking and swimming are ideal. If the constipation doesn’t improve you should consult with your pharmacist or doctor. They may recommend remedies like fybogel® or lactulose. It is important not to self medicate during pregnancy without checking with your pharmacist or doctor.

For comprehensive and free health advice and information call in to Whelehans, log on to **www.whelehans.ie** or dial 04493 34591. You can also e-mail queries to **info@whelehans.ie**.