DECISIONS

Constipation in a 40-year-old woman

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Choosing Wisely Canada
In partnership with the Canadian Medical Association

A 40-year-old woman reports having infrequent bowel movements and bloating. For many years, she typically has had bowel movements of hard, pellet-like stools every two or three days. Over the last year, they have decreased in frequency to every three or four days and are preceded by bloating and discomfort in the left lower quadrant. The patient also usually strains excessively to pass stools.

What questions should the patient be asked about her constipation?

Constipation is broadly defined as unsatisfactory defecation characterized by infrequent stools, difficult stool passage or both.[1] It is extremely common and is mostly due to insufficient intake of dietary fibre.[1] Symptoms or signs that suggest serious disease (i.e., alarm features) include progressive weight loss, blood in the stool, abdominal or rectal mass, or anemia (in men or postmenopausal women).[1] Variations in stool diameter are generally not concerning, unless the stools become progressively thinner ("pencil-thin stools"); intermittently thin stools alternating with normal-caliber ones are not clinically significant.[2] Current medications should be reviewed for constipating agents (e.g., narcotics, anticholinergic agents, calcium-channel blockers), and potential contributing factors such as recent travel (which may cause changes in eating patterns or dehydration) should be examined.

Many disease states may cause or contribute to constipation, such as Parkinson disease. In cases where straining and difficulty with evacuation are the most prominent symptoms, further evaluation for a defecation disorder may be helpful. Such disorders include anatomic causes (e.g., large rectocele, rectal prolapse) and poor relaxation of the pelvic floor.[1] Surgical management or retraining may help, but specialist expertise is generally required.

Is it important to distinguish between irritable bowel syndrome and constipation in this patient?

Abdominal pain, discomfort and bloating are hallmarks of irritable bowel syndrome (IBS) and are associated with altered bowel patterns, including constipation-predominant IBS.[3] There is no discrete symptomatic point where chronic constipation becomes IBS; it is better thought of as a continuum, with a diagnosis of IBS more likely if pain is the main symptom rather than hard stools or straining. For treatment of constipation and bloating, both disorders are initially treated similarly (as discussed below). However, IBS also has a psychosocial dimension, where hypervigilance, anxiety and personality traits may play a role and may need to be addressed separately.[3] In the case of this patient, it would help to ask about the reasons why her symptoms may have worsened in the past year (e.g., change in diet, relationship, job and stress).

What investigations are required for this patient?

Physical examination should include a digital rectal examination.[4] Lesions causing pencil-thin stools (e.g., rectal cancer) are usually very distal and palpable on a digital rectal examination. In a recent position statement, the American Gastroenterological Association strongly recommended (based on low- to moderate-quality evidence) that patients without other symptoms or signs undergo only a complete blood count and that metabolic tests (e.g., glucose, calcium, thyroid-stimulating hormone) are not required.[4] Furthermore, a colonoscopy should not be performed in patients without alarm features unless age-appropriate colon cancer screening has not been performed (Box 1).[5]

What treatments should be considered?

A "step-up" regimen is generally advocated for the management of constipation, with the use of

Box 1: Choosing Wisely Canada recommendation on colonoscopy in constipation[5]

Avoid performing a colonoscopy for constipation in people less than 50 years of age without a family history of colon cancer or alarm features.

- Constipation is a common problem, and data from systematic reviews suggest this is not an accurate symptom in diagnosing organic disease. If the patient is also less than 50 years of age and does not have a family history of colon cancer, and there are no alarm features (e.g., anemia or weight loss), then the risk of colorectal cancer is very low and the risks of colonoscopy usually outweigh the benefits in these patients.

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The clinical scenario is fictional.

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Box 2: Common treatments of constipation[6]

Treatment	Mechanism of action	Recommended dosage	Relative cost
Soluble fibre (e.g., psyllium)	Bulking agent	6–12 g/d	$
PEG 3350	Osmotic	17 g/d in water	$$
Lactulose	Osmotic	15–30 mL/d	$$
Stimulant laxative (e.g., bisacodyl)	Motility stimulant	10 mg as needed	$$
Prucalopride	Prokinetic	2 mg/d	$$$
Linaclotide	Guanylate cyclase C agonist	145 μg/d for chronic constipation	$$$
		290 μg/d for IBS with constipation	$$$$

Note: IBS = inflammatory bowel syndrome, PEG = polyethylene glycol.

fibre supplementation and increased fluid intake as first-line treatment in primary care. This can be achieved through dietary changes or with the addition of a soluble fibre supplement, such as psyllium 6–12 g/d for at least a two-week trial.[4,6]

When fibre is ineffective, other commonly used agents have adequate evidence to support their use for chronic constipation. In a recent systematic review,[7] the American College of Gastroenterology strongly recommended (based on moderate- to high-quality evidence) that polyethylene glycol (PEG 3350), a stimulant laxative, prucalopride or linaclotide be used (Box 2). Use of fibre and lactulose were also strongly recommended, although the quality of evidence was weaker owing to small and heterogeneous studies. Although these agents are not indicated for relief of opioid-induced constipation, they are often used for that purpose. Stool softeners may help in situations where straining is not recommended (e.g., after pelvic floor surgery).

Lactulose is a nonabsorbable disaccharide and should be avoided if the patient has IBS-like symptoms, because it will often increase bloating symptoms.[8] Evidence of the effectiveness of long-term use of stimulant laxatives (e.g., bisacodyl) is lacking; given issues of habituation, continuous use of stimulants is not recommended. Osmotic laxatives (e.g., PEG 3350, milk of magnesia) are second-line agents and are well tolerated.[6]

Nonlaxative prescription medications for constipation include prucalopride and linaclotide. They appear to be safe when given in conjunction with a stimulant or osmotic laxative.[9,10] Both medications are taken orally once daily, with high-quality evidence supporting their use,[7] but they are more expensive than second-line agents. Linaclotide is the only agent that has an indication for both chronic constipation and constipation-dominant IBS.

The case revisited

The patient had no alarm features in her history, but she had been taking an over-the-counter iron supplement, which likely exacerbated her long-standing constipation symptoms. An initial trial of soluble fibre (psyllium) caused increased bloating. A subsequent trial of PEG 3350 (17 g in water daily) resolved her symptoms. Once the iron supplement was stopped three months later, the patient was able to reduce her frequency of PEG 3350 use.

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