The hand that writes the opioid...

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Jack is 58 years old and has widely metastatic lung cancer. He is using long-acting morphine and occasionally requires short-acting doses for breakthrough pain. He has severe neuropathic pain that is controlled with 50 mg of imipramine at bedtime. He is getting weaker and eating less. Jack presents with recent abdominal pain and a history of no bowel movements for the past week. His abdomen is soft, but slightly tender in the left lower quadrant.

Reports indicate that 70% to 80% of terminal cancer patients,[1] 30% of hospice patients,[2] and 30% to 35% of patients using opioid analgesics suffer constipation.[3] Constipation has been defined in many ways. Although the Rome II definition[4] of chronic constipation might not easily apply to palliative patients, it is helpful to consider its criteria in addressing constipation in this population.

The Rome II criteria for diagnosing chronic constipation[4] require patients to have 2 of the following symptoms for 12 weeks during the past 12 months:

- straining with more than 25% of bowel movements,
- lumpy or hard stools in more than 25% of bowel movements,
- a sensation of incomplete emptying with more than 25% of bowel movements,
- a sensation of anorectal obstruction or blockade with more than 25% of bowel movements,
- a need for manual maneuvers to facilitate defecation with more than 25% of bowel movements; or
- fewer than 3 stools passed per week.

Etiology

There are many reasons palliative patients become constipated.[5] Many are fatigued, immobile, and eating and drinking much less than they usually would; all these factors contribute to constipation. Palliative patients often have to have bowel movements in inconvenient and unfamiliar places. As patients become weaker, they sometimes have to evacuate their bowels in nonphysiologic positions, such as reclining or prone positions.

Medications add to the problem. Opioids are perhaps the most common class of medication prescribed to palliative patients. All opioids cause constipation, and the severity of constipation is not necessarily dose dependent. The fentanyl patch has been shown to be significantly less constipating[6]; however, this has not been found consistently,[3] and clinically there seems to be a fair amount of variation in effectiveness. Opioids constipate through a number of mechanisms. They dry out stool by increasing water absorption from the small and large colon, alter the normal propulsive actions of the bowel, increase sphincter tone, and decrease the defecation reflex.

Tricyclic antidepressants are commonly used in management of neuropathic pain. Nonsteroidal anti-inflammatory drugs are also frequently prescribed to help manage pain. Diuretics are an integral part of management of congestive heart failure. All these medications can cause or contribute to constipation.

Making the diagnosis

Symptoms of constipation include anorexia, nausea, vomiting, abdominal pain, bloating, tenesmus, and diarrhea (leaking past the fecal obstruction). Making the diagnosis involves paying close attention to patients' history as well as performing abdominal and rectal examinations. Abdominal examination might reveal tenderness, bloating, or even palpable stool masses. Rectal examination is essential, as it can confirm hard stools or,

Managing constipation in palliative care

- Confirm the diagnosis by history, physical examination, and possibly abdominal x-ray examination and by ruling out other conditions (eg, bowel obstruction).
- Review medications. Reduce or change likely offending medications, if possible.
- Check calcium to rule out hypercalcemia as a contributing cause. Treat if necessary.
- Start a stimulant laxative.
- Add an osmotic laxative if the stimulant laxative is not effective within 48 hours.
- If the rectum is full of stool, consider a low enema.
- If the stool is hard and impacted, use manual disimpaction with extra analgesia.
- Encourage patients to continue taking laxatives to prevent recurrence.

in the absence of stool in the rectum, suggest a blockage higher in the colon. An abdominal x-ray scan might be helpful if the rectum is empty. A serum corrected calcium level should also be determined in order to rule out hypercalcemia, a common metabolic disturbance in advanced disease that can exacerbate constipation by reducing colonic secretions and bowel transit times.

Treatment

Anticipating and preventing constipation, or treating it when it is mild is always easier. Once constipation is established, management can be much more difficult. Treatment includes correcting reversible metabolic abnormalities and identifying offending medications that might or might not be able to be reduced or changed.

There are some specific treatments for constipation. Laxatives prescribed for constipation are generally of 4 varieties: bulk-forming, softeners, stimulants, and osmotics (**Table 1**). Many patients who have been constipated in the past might be using bulk-forming agents. These should usually be discontinued, as they require good fluid intake and intraluminal moisture to be effective, both of which are frequently lacking in palliative care patients. Docusate is often used to soften stool, though there is little evidence that it is effective.[7] For mild constipation, oral stimulants (eg, sennosides) are helpful. For severe constipation, adding milk of magnesia or lactulose could help. Polyethylene glycol solutions can be helpful. Stimulant and osmotic laxatives should not be used for patients with bowel obstructions.

Opioid receptors are located centrally, but also peripherally. To treat opioid-induced constipation, it would seem logical to block these receptors, if possible. Although this can be partially attained with use of oral naloxone, there is a risk of opioid withdrawal, and this approach would not be recommended routinely. Newer antagonists are being investigated.[5]

If the large bowel or rectum is full, a stimulant suppository, an enema, or disimpaction might be required along with oral medications. Suppositories must be placed against the rectal wall; they will not be effective within a mass of stool. Enemas might help to soften stool, as well as stimulate defecation. Disimpaction can be painful, and patients might require extra analgesia.

Once the constipation has resolved, patients remain at risk and should continue taking stimulant laxatives and possibly osmotic laxatives as well. Choice of drug and dose should be individualized based on effectiveness.

Every effort should be made to take advantage of natural mechanisms to move bowels. Patients should be encouraged to keep moving as long as they are able. As much as possible, caregivers should respond promptly to patients' natural urges to have a bowel movement. Caregivers can encourage independence in toileting by modifying toilet seats, installing grab bars, and making commodes available.

Table 1. Common medications for constipation

MEDICATIONS	DOSAGE
Oral stimulant laxatives	
• Sennosides	8.6 mg 2-9 tablets daily
• Bisacodyl	5-10 mg daily
Oral osmostic laxatives	
• Milk of magnesia	30-60 mL 2 to 3 times daily
• Lactulose	30-60 mL 2 to 3 times daily
• Polyethylene glycol solutions	
Oral softeners	
• Docusate sodium	100 mg 2 times daily
• Docusate calcium	240 mg 2 times daily
Suppositories	
• Bisacodyl (stimulant)	10 mg
• Glycerin (stimulant/softener)	
Enemas	
• Sodium phosphates (osmotic)	
• Mineral oil softener/lubrication)	

Conclusion

Jack's pain is well controlled with his current opioid, so there is little reason to change it. In addition to taking medications specifically directed at treating his constipation, he is encouraged to be active and drink lots of fluids—both will be helpful.

It is always important to ask about constipation at initial and subsequent visits. And the old adage still holds true: the hand that writes the opioid should also write something to prevent constipation.

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BOTTOM LINE

- Constipation is a common problem in palliative care. Anticipate it. Aggressively inquire about it. Look for it. And look for causes.
- Pre-empt problems by prescribing medications for constipation at the same time as prescribing those that cause it.

POINTS SAILLANTS

- La constipation est un problème fréquent en soins palliatifs. Prévoyez-la. Demandez avec insistance si elle est présente. Cherchez-en les indices et les causes.
- Prévenez les problèmes en prescrivant des médicaments contre la constipation en même temps que votre ordonnance de médicaments qui la causent.

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Further reading

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