A 52-YEAR-OLD WOMAN WITH WORSENING CONSTIPATION

James C. Eoff III, PharmD*

BACKGROUND

ES, a 52-year-old woman, complains of having worsening constipation, abdominal discomfort, and bloating for the past 2 months, which began when she was reassigned from the 7 AM to 3 PM shift to the 3 PM to 11 PM shift at work. Since then, she has been having only 1 or 2 spontaneous bowel movements per week. Self-treatment with over-the-counter (OTC) laxatives (specifically, senna products) initiates the urge to defecate, but also causes excessive straining upon defecation.

MEDICAL HISTORY

ES has a long history of mild constipation, averaging 2 to 3 bowel movements per week. Because occasional use of senna products provided temporary relief in the past, she tried these agents again, believing they would be helpful. She has no other chronic diseases or symptoms and no history of renal impairment.

INITIAL RECOMMENDATIONS

• A 1-month trial of lifestyle changes, which include:
  – Increased intake of dietary fiber (eg, bran cereal, whole-grain bread, fresh fruits, and vegetables)
  – Increased fluid intake (an additional 4 glasses/day)
  – Increased physical activity/regular exercise (walking 30 minutes/day at least 5 days/week or joining a health club)
• Addition of a bulk laxative (eg, psyllium) if lifestyle modifications do not produce any improvement after 1 month

COMMENTARY

A 1-month trial of lifestyle changes is the first line of therapy for chronic constipation. If these changes do not result in any significant improvement after this time, psyllium or some other bulk laxative should be added to the regimen.

Another factor involved in this scenario is that this patient’s mild constipation worsened after she was reassigned to a different shift at work and her daily routine was disrupted. Although changes in work schedules have not been reported to cause chronic constipation, concomitant changes in dietary and/or exercise patterns, in addition to the psychological stress associated with a new shift and a disruption in daily routine, could play a role. Therefore, ES should be encouraged to readjust her daily routine, in addition to increasing her intake of dietary fiber, drinking more fluids, and exercising regularly.

FIRST FOLLOW-UP

ES says she followed the recommended lifestyle changes for 1 month, but had no significant increase...
in bowel movement frequency or decrease in abdominal symptoms or straining. She then started taking psyllium, beginning with 1 tablespoon at bedtime every day and gradually increasing the dose to 1 tablespoon 3 times a day over a period of 3 weeks. She has now been taking the higher psyllium dose for the past week. ES now has 2 or 3 bowel movements per week, but complains of abdominal distention, flatulence, and very hard and dry stools that worsen the already excessive straining.

**TREATMENT RECOMMENDATIONS**

- Increase fluid intake by drinking at least 1 glass of water or other fluid (8 oz) with each dose of psyllium.
- Discontinue psyllium and switch to an osmotic agent such as magnesium hydroxide (Milk of Magnesia) if additional fluid intake has not relieved the primary symptoms.

**COMMENTARY**

Unless psyllium is taken with enough water or other fluid (8 oz with each dose), it may increase stool bulk and hardness, making defecation more difficult. If ES has increased her fluid intake with each psyllium dose, but her symptoms still persist, she should be instructed to discontinue psyllium and switch to an OTC osmotic laxative such as magnesium hydroxide. An agent containing a magnesium salt is a reasonable treatment option for ES because she is in otherwise good health and has no history of renal impairment. However, these agents should be avoided in patients with renal insufficiency or electrolyte disturbances.

**SECOND FOLLOW-UP**

ES discontinued psyllium and switched to magnesium hydroxide, beginning with 2 tablespoons at bedtime each day. She increased the dose to 4 tablespoons a day after 1 week of treatment with the lower dose because it had little effect. The higher dose was moderately effective for 4 or 5 weeks, resulting in a relatively normal bowel movement every 2 or 3 days. After 2 months, however, the laxative stopped working, and ES reverted to having only 1 or 2 bowel movements per week.

**TREATMENT RECOMMENDATIONS**

- Trial therapy with prescription osmotics such as lactulose and polyethylene glycol (PEG) 3350
- Possible therapy with tegaserod (Zelnorm; Novartis Pharmaceuticals, East Hanover, NJ) or lubiprostone (Amitiza; Takeda Pharmaceuticals North America, Inc., Lincolnshire, Ill; Sucampo Pharmaceuticals, Bethesda, Md)

**COMMENTARY**

ES can be considered refractory because traditional osmotic laxative therapy (magnesium hydroxide) is no longer working and she has already tried a stimulant laxative (senna) but was distressed by the excessive straining that it caused. Some refractory patients can benefit from a trial of therapy with poorly absorbed sugars such as lactulose and PEG 3350. Although these prescription agents are approved for occasional or short-term constipation, but not for chronic constipation, recent reports and the Task Force on Chronic Constipation of the American College of Gastroenterology highly recommend them for chronic constipation, with PEG having somewhat fewer side effects. However, because ES has a long history of mild constipation and a 6-month history of worsening and increasingly chronic constipation, therapy with newer prescription agents such as tegaserod and lubiprostone can also be considered. Both agents are approved for the treatment of chronic constipation, with lubiprostone having no age restrictions and tegaserod indicated only in patients younger than 65 because phase III studies included relatively few patients over the age of 65.

Tegaserod, a 5-hydroxytryptamine4 (serotonin) receptor partial agonist, must be taken on an empty stomach for maximal therapeutic effects, whereas lubiprostone must be taken with meals to minimize nausea, its most common side effect.

**THIRD FOLLOW-UP**

ES started therapy with PEG on a trial basis. Within days, she was having more frequent bowel movements, with better stool consistency and less straining. ES has now been taking PEG for 3 months and is doing well.

**COMMENTARY**

Although PEG is approved for short-term treatment (2 weeks or less), many patients remain on therapy with the agent for considerably longer periods of time. Should ES require higher doses of PEG because of a repeated episode of worsening constipation, and should she become unable to tolerate the
side effects associated with higher doses (eg, diarrhea, nausea, abdominal bloating, cramping, and flatulence), therapy with tegaserod or lubiprostone is a reasonable option.12

REFERENCES
