Evaluation and Treatment of Colonic Symptoms

Mark E. Pasanen, MD

KEYWORDS

• Diarrhea • Constipation • Irritable bowel syndrome • Laxatives • Antidiarrheals

KEY POINTS

- Most acute diarrhea is infectious, with empiric antibiotics reserved for patients with high fever, blood diarrhea, or other worrisome features.
- Irritable bowel syndrome (IBS) and functional diarrhea are the most common causes of chronic diarrhea.
- In chronic diarrhea, fecal calprotectin may help differentiate IBS from an inflammatory disorder.
- Determine if constipation is due to a defecatory disorder by history (excessive straining, need for perineal pressure, and/or manual disimpaction) because treatment with pelvic floor training is superior to laxatives.
- For idiopathic chronic constipation, initial treatment should include fiber and polyethylene glycol with stimulants and new secretagogues as secondary options.

DIARRHEA

In the past, the definition of diarrhea relied on increased stool weight (>200–300 g/d) and increased frequency of stools (>3/day). However, most definitions now focus on loose or watery stool consistency and urgency because these are most consistent with patient self-reports of diarrhea.[1] Probably the best description is that the stool takes the shape of the container in which it is collected. Diarrhea is considered acute if duration is less than 2 weeks, persistent if 2 to 4 weeks, and chronic if more than 4 weeks. Often, it is classified by the underlying pathologic process: inflammatory, watery, or malabsorptive.

Prevention

Although the focus of this article is the evaluation and management of bowel symptoms, several strategies may be effective in prevention of diarrhea. Clearly, careful

Disclosures: None.
Department of Medicine, University of Vermont College of Medicine, 1234 Spear Street, 111 Colchester Avenue, South Burlington, VT 05403, USA
E-mail address: mark.pasanen@yahoo.com

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hygiene and attention to food and water safety is critical. In addition, inappropriate antibiotic use should be minimized. However, when antibiotics are indicated, there may be a role for probiotic use to prevent both antibiotic-associated and *Clostridium difficile*-associated diarrhea. The most commonly studied probiotics include *Lactobacillus*, *Bifidobacterium*, and *Saccharomyces*. A systematic review of 63 randomized trials of probiotics, in which a broad range of antibiotics were used, found a 32% reduction in antibiotic-associated diarrhea. Therefore, a physician would need to treat 13 patients on antibiotics with probiotics to prevent one episode of diarrhea.[2] In addition, a systematic review has shown an approximately 66% decrease in the number of cases of *C difficile*-associated diarrhea for those patients treated with probiotics (number needed to treat [NNT] 26).[3]

ACUTE DIARRHEA

Epidemiology

In the United States, there are more than 300 million cases of diarrhea per year. However, accurate estimates of incidence are difficult because most patients do not present for evaluation. In addition, the yield of stool culture has been quite low, with historically only 1.5% to 5.8% returning a positive result.[4] Most cases of acute diarrhea are due to infection, including viruses (norovirus or rotavirus), bacteria (*Staphylococcus*, *Salmonella*, *Shigella*, *Campylobacter*, *Escherichia coli*, and *C difficile*), and parasites (*Giardia*, *Blastocystis*, and *Cryptosporidium*). In a recent study, adult subjects presenting to emergency departments with acute gastroenteritis were evaluated with extensive testing. Pathogens were identified in 25%, with yields up to nearly 50% when a whole stool specimen was submitted (compared with only rectal swabs). The most common pathogens identified were norovirus (26%), rotavirus (18%), salmonella (5.3%), clostridium (5.3%), campylobacter (3%), and parasites (3%).[5]

Patient History or Examination

When evaluating a patient presenting with acute diarrhea, the important historical items help determine cause and assesses severity. Therefore, it is critical to get a detailed history of recent travel, antibiotic use, medication changes, ingestions (including raw or undercooked meats), ill contacts (including children), and underlying immune status. Further questions should concern the frequency and consistency of bowel movements, including the presence of blood or pus, as well as whether there is concomitant fever or abdominal pain. The physical examination is primarily focused on volume status and severity of illness. It should include, along with other modalities, orthostatic blood pressure measurement.[4]

DIAGNOSTIC TESTS

In the immune-competent patient who presents in the first 2 to 3 days with acute diarrhea and no worrisome symptoms, no specific diagnostic testing is indicated. Evidence of a more inflammatory or invasive infection includes fever, severe abdominal pain, and blood and/or pus in the stool. If any of these are present, diagnostic testing is indicated. In addition, patients who are immunocompromised, elderly, generally unwell, or having severe symptoms are candidates for testing.

Markers of Inflammation

For years, various investigations have been performed in an attempt to better define cases of inflammatory diarrhea, including stool leukocytes and lactoferrin, a product of leukocytes. Existing guidelines recommend either performing or considering