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Constipation in the Primary Care Setting: Current Concepts and Misconceptions

Arnold Wald, MD

University of Wisconsin School of Medicine and Public Health, Madison, Wis.

ABSTRACT

Constipation is prevalent in Western societies and is a common illness in clinical practice. A broader clinical definition, which encompasses difficult and infrequent defecation, has aligned medical concepts with that of patients and the general population. Unfortunately, there are widespread misconceptions concerning the origins and management of constipation within both the lay and medical communities that influence recommendations by health care practitioners. This review highlights and seeks to correct some of these misconceptions and provide treatment guidelines for the practicing physician.

KEYWORDS: Constipation; Laxatives; Enterokinetics

Constipation is prevalent in Western societies, and concerns with bowel habits are commonly presented in clinical practice.[1,2] As with many functional disorders, constipation is often mild and intermittent. The availability of over-the-counter laxatives and fiber supplements leads to frequent self-treatment, with just one third of individuals with constipation seeking out health care.[2] However, constipation may be unresponsive to simple interventions, resulting in medical consultation.

The definition of constipation varies among laypersons and physicians. The previous overly narrow definition of infrequent defecation has been broadened to encompass difficult defecation,[3] which has aligned our medical concepts with that of patients and the general population. Indeed, infrequent defecation is an uncommon symptom among those who are constipated, and there is little evidence that symptoms predict colon and anorectal dysfunction as defined by current diagnostic tests. A consensus definition is frequently used in clinical research and may serve as a guide for practicing physicians (Table 1).

There are many strongly held beliefs concerning the management of chronic constipation among both the lay population and physicians that are not based on comparably strong evidence. These have arisen by clinical observations or on the basis of studies that were not rigorously performed. Unfortunately, these beliefs often guide self-treatment by the lay population and influence recommendations by health care practitioners.

The purpose of this review is to highlight and correct some of these beliefs, so that physicians and other health care providers can offer more clinically proven advice and treatment to their patients who seek medical attention for constipation.

MISCONCEPTIONS ABOUT BOWEL HABITS AND LIFESTYLE

- **Daily bowel movements are important for overall health. Chronic constipation may result in poor general health because of failure to empty toxins from the colon in a timely fashion.**

The preoccupation with daily evacuation of stools became widespread in the early 20th century, fueled in large part by the ill-conceived concept of "autointoxication."[4] According to this theory, toxins arising from prolonged residence of undigested food in the colon were absorbed resulting in myriad illnesses and a variety of nonspecific symptoms. This led to the advocacy of regular colon cleansing with laxatives and enemas, rituals that remain common today among the lay population and that are clearly unnec-

Requests for reprints should be addressed to Arnold Wald, MD, Professor of Medicine, Section of Gastroenterology and Hepatology, UWHC-H6/516, 600 Highland Avenue, Madison, WI 53792.

E-mail address: axw@medicine.wisc.edu.

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Table 1 Diagnostic Criteria for Chronic Functional Constipation (Rome II)

Diagnostic criteria for functional constipation are 2 or more of the following occurring for at least 12 weeks, which need not to be consecutive, in the preceding 12 months*:

1. Straining during at least 25% of defecations
2. Lumpy or hard stools in at least 25% of defecations
3. Sensation of incomplete evacuation in at least 25% of defecations
4. Sensation of anorectal obstruction/blockage in at least 25% of defecations
5. Manual maneuvers to facilitate in at least 25% of defecations (eg, digital evacuation, support of the pelvic floor) *and/or*
6. Fewer than three defecations per week

From Appendix A. In: Drossman DA, Corazziari E, Talley NJ, Thompson WG, Whitehead WE, eds. *Rome II: The Functional Gastrointestinal Disorders*. Second edition. McLean, VA: Degnon Associates, Inc; 2000. Available at: www.romecriteria.org/documents/Rome_II_App_A.pdf. Accessed December 30, 2005.

*Loose stools are rarely present without the use of laxatives, and there are insufficient criteria for irritable bowel syndrome.

essary. Moreover, large population studies have shown that healthy individuals have as few as three evacuations per week without ill effect. In general, women have fewer and smaller bowel movements than do men.

The lack of evidence to support a daily stool evacuation as essential to health should prompt medically appropriate education of patients to emphasize that a daily bowel movement is not the gold standard for the adult population. This should reduce anxiety among patients and decrease the unnecessary use of laxatives and constipation remedies.

- **Constipation is often the result of a diet poor in fiber, low fluid intake, and/or lack of exercise.**

Certainly, exercise and consumption of dietary fiber and fluids are healthy choices for most individuals, but deficiencies in any or all of these do not seem to be major causes of chronic constipation.

Those few studies that have measured dietary fiber intake in persons with chronic constipation have found no differences compared with nonconstipated controls.[5] This is not to say that fiber supplements are without benefit in some constipated individuals. It has been shown that increased consumption of dietary fiber increases stool weight and frequency in healthy individuals and decreases colonic transit time.[5] The bowel habits of some constipated patients will improve with fiber supplements; such individuals seem to have a "relative fiber deficiency" in that they require larger amounts of fiber than do nonconstipated individuals.

However, some constipated patients will do poorly with fiber supplements; those with constipation–predominant irritable bowel syndrome, idiopathic slow transit constipation, or primary defecation disorder. One study showed that 80% of constipated patients with slow transit and 63% with a disorder of defecation did not respond to dietary fiber treatment.[6] Thus, fiber supplements should not be given indiscriminately to patients with constipation or be aggressively increased in those who fail to respond appropriately. Patients should be monitored for discomfort, and fiber intake should be modified as needed.

In contrast with fiber, there is no evidence to support the use of increased fluid intake or exercise in treating constipation.[7] No studies show that constipated individuals consume less fluid or exercise less than do nonconstipated individuals.[4] In addition, no studies demonstrate improvement of bowel habits or bowel transit with increased fluid intake.[8] This should not be surprising because the small intestine handles 7 to 10 L of fluid each day, making extra fluid intake of little importance. Increased fluid intake will increase urinary output but not stool weight. Likewise, there are no studies to support the notion that increased exercise improves bowel function.[9] Adequate fluid intake and physical activity promote general health but do not specifically address constipation.

MISCONCEPTIONS CONCERNING THE USE OF LAXATIVES

- **Currently available stimulant laxatives are not clinically effective.**

Laxatives are among the most widely used medications in Western countries. Because they are available as both prescription drugs and over-the-counter drugs, the population has easy access to many laxatives without the need for a physician. Laxatives are divided into several categories based on their chemical characteristics and mode of action, but all are designed to increase frequency and ease of defecation.

Laxatives may be broadly classified as bulking agents, osmotic agents, and stimulant laxatives (Table 2). Bulking agents and osmotic laxatives are best given orally on a once-daily basis, whereas stimulant laxatives may be administered orally or per rectum as needed. Phosphosoda preparations may be given in small-volume enemas, although it is uncertain whether they are superior to similar volumes of water. Similarly, there is no evidence that the addition of soap, molasses, or other substances enhance the effect of warm tap-water enemas.

A recent review using the concept of evidence-based medicine provided a decidedly mixed report on the efficacy of laxatives.[10] There are sufficient data to support the efficacy of osmotic agents (polyethylene glycol, lactulose, and sorbitol). In contrast, stimulant laxatives such as senna and bisacodyl that were developed decades ago do not have data of similar quality. Those older studies that evaluated stimulant laxatives do not meet current criteria of therapeutic clinical trials and are at a disadvantage when recent studies are reviewed for comparison analysis.[11] However, paucity of "evidence for" does not equate to "evidence against." Evidence-based medicine is an important tool to guide practicing physicians, but as with any tool, it can result in a misleading picture in clinical medicine. Stimulant laxatives