Chronic Constipation

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KEYWORDS

• Constipation • Pathophysiology • Motility • Diagnostic testing
• Anorectal manometry • Laxatives • Secretagogues

KEY POINTS

- Chronic constipation is a disabling disorder affecting approximately 20% of the world's population. In outpatient clinics in the United States it is 1 of the 5 most commonly diagnosed gastrointestinal disorders.
- There are many etiologies for constipation and these can overlap. Constipation may be due to a combination of normal or slow transit, an evacuation disorder, or secondary to an underlying medical condition.
- Old and newer diagnostics are available to differentiate the causes of chronic constipation. Those most commonly used include radiopaque marker testing, anorectal manometry, balloon expulsion testing, defecography, and wireless motility capsule.
- Regularly used therapeutic classes include stool softeners, emollients, bulking substances, stimulant and osmotic agents, and the newest category of agents: the secretagogues.

CHRONIC CONSTIPATION

Introduction

Chronic idiopathic constipation (CIC) is one of the most common digestive complaints in the general population. This disorder affects approximately 20% of individuals, and is 1 of the 5 most common issues assessed by practicing gastroenterologists in the United States.[1,2] Data recently collected from the National Ambulatory Medical Care Survey and National Hospital Ambulatory Medical Care Survey recently identified CIC as the fourth most common gastrointestinal (GI) diagnosis made in emergency departments (EDs) between 2006 and 2012. This study found 800,000 visits representing

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a 60% increase over this time period. Combining ED, office, and hospital outpatient visits in 2010, CIC represented 3.7 million evaluations, ranking as the fourth most commonly diagnosed GI disorder in the United States.[3]

Although considered benign in most cases, CIC can result in chronic illness with potentially serious complications including fecal impaction, incontinence, hemorrhoids, anal fissures, bleeding, and in the most extreme cases colon perforation. These aside, the disorder alone is associated with significantly impaired quality of life.[4] Chronic constipation is most commonly associated with increasing age. There is also increased prevalence among women (median female-to-male ratio of 1:5:1) with women more likely to use laxatives and seek health care for their constipation. Although the exact etiologic mechanisms have yet to be elucidated, anatomic and hormonal differences (ie, elevations in serum progesterone) appear to play a role. This may also explain why some women experience increased rates or exacerbations of their symptoms with pregnancy and/or during hormonal fluctuations within their menstrual cycles. Other risk factors correlated with the development of CIC include decreased daily physical activity and/or low fiber intake, low socioeconomic status, and reduced education.[1]

Currently, CIC is defined via the Rome III criteria as documented later in this article.[5] However, updates to these are expected with the publication of the Rome IV criteria in 2016 (**Box 1**).

Etiology/Pathophysiology

The pathogenesis of CIC is complex; it has the potential to be derived from a singular entity or multiple overlapping etiologies (**Fig. 1**). Based on current schemata, chronic constipation is usually classified into 2 categories: idiopathic (or primary) and secondary constipation. The distinctions between the 2 types are important, as identification of etiology can help guide therapy.[6]

Secondary Constipation

Multiple biological, environmental, and pharmaceutical precipitants exist with the potential to cause CIC (**Fig. 2**). Pharmaceuticals are one of the most common contributors to the development of constipation. Major categories of secondary systemic

Box 1
Rome III diagnostic criteria for functional constipation

Infrequent loose stools

Insufficient criteria for a diagnosis of irritable bowel syndrome (IBS)

≥2 of the following symptoms present for ≥6 months

<3 bowel movements (BMs) per week

Lumpy or hard stools ≥25% BM

Straining ≥25% of BM

Sensation of incomplete evacuation ≥25% BM

Sensation of anorectal blockage ≥25% BM

Use of manual maneuvers to facilitate defecation ≥25% BM

Data from Longstreth GF, Thompson WG, Chey WD, et al. Functional bowel disorders. Gastroenterology 2006;130:1480