

## ASGE guideline: guideline on the use of endoscopy in the management of constipation

*This is one of a series of statements discussing the utilization of GI endoscopy in common clinical situations. The Standards of Practice Committee of the American Society for Gastrointestinal Endoscopy prepared this text. In preparing this guideline, a MEDLINE literature search was performed, and additional references were obtained from the bibliographies of the identified articles and from recommendations of expert consultants. When little or no data exist from well-designed prospective trials, emphasis is given to results from large series and reports from recognized experts.*

*Guidelines for appropriate utilization of endoscopy are based on a critical review of the available data and expert consensus. Further controlled clinical studies are needed to clarify aspects of this statement, and revision may be necessary as new data appear. Clinical consideration may justify a course of action at variance to these recommendations.*

### INTRODUCTION AND EPIDEMIOLOGY

Constipation is a common symptom affecting 2% to 27% of the population and resulting in about 2.5 million physician visits in the United States.<sup>1,2</sup> The prevalence of constipation is higher in women than in men<sup>3</sup> and increases with age.<sup>4</sup> Low socioeconomic status, physical inactivity, a history of sexual abuse, and depression have all been reported as risk factors for constipation.<sup>5</sup>

### DEFINITION

Chronic constipation has been defined by the Rome II diagnostic criteria (Table 1).<sup>6</sup> Patients who experience excessive straining, discomfort at defecation, or passage of hard or pellet stools may complain of "constipation" even though the frequency of defecation may be normal.

### THE ROLE OF ENDOSCOPY

Colonoscopy is indicated in selected patients to exclude obstruction from cancer, stricture, and extrinsic compression. Patients with constipation should undergo colonoscopy if they have rectal bleeding, heme-positive stool, iron deficiency anemia, weight loss, obstructive symptoms, recent onset of constipation, rectal prolapse, or change in stool caliber. Colonoscopy should also be done before surgery for constipation.

Patients over the age of 50 years who have not had prior colorectal cancer screening should undergo colonoscopy. Chronic constipation was associated with an increased risk of colon cancer in two U.S. population-based, retrospective studies (odds ratio 2.36: 95% confidence intervals [1.4, 3.93])<sup>7</sup> (relative risk 4.4 for severe constipation: 95% CI[2.1, 8.9])<sup>8</sup> but not in a prospective study of women nurses.<sup>9</sup> A retrospective study from Australia also reported increased cancer risk in patients with constipation,<sup>10</sup> and a retrospective study from Japan found increased risk in frequent laxative users.<sup>11</sup>

In younger patients, a flexible sigmoidoscopy may be sufficient to exclude distal disease. Suspected Hirschsprung's disease requires anorectal manometry and deep biopsy to examine for the absence of myenteric neurons.<sup>12-14</sup>

The yield of colonoscopy in isolated constipation is low and is comparable with asymptomatic patients who undergo colonoscopy for colon cancer screening. In one study of 563 sigmoidoscopies or colonoscopies done for evaluation of constipation, colorectal cancer was found in 8 (1.4%), adenomas in 82 (14.6%), and advanced lesions (cancer or adenoma with malignancy, high-grade dysplasia, villous features, or size >10 mm) in 24 (4.3%).<sup>15</sup> Associated findings may include solitary rectal ulcer syndrome (indicating prolapse), anal fissure, and melanos coli (indicating chronic laxative use).

Colonoscopy may be used to provide therapy in some patients. Fibrotic strictures from inflammatory bowel disease, surgery, or ischemia can be dilated at the time of colonoscopy.<sup>16-19</sup> Colonoscopy has no role in stool disimpaction, although there are reports of removal of sunflower seed bezoars that were causing fecal impaction.<sup>20</sup>

Chronic constipation is an independent risk factor for inadequate bowel preparation for colonoscopy.<sup>21</sup> In these

**TABLE 1. Rome II criteria for functional constipation**

At least 12 wk in the preceding 12 mo of two or more of the following:

- Straining with at least 25% of defecations
- Lumpy or hard stools in at least 25% of defecations
- Sense of incomplete evacuation with at least 25% of defecations
- Sensation of anorectal blockage in at least 25% of defecations
- Manual maneuvers to facilitate at least 25% of defecation
- Stools less frequent than 3 per wk
- Loose stools are not present, and there are insufficient criteria for irritable bowel syndrome

patients, a more aggressive regimen for colon cleansing should be considered.

Some third party payers, e.g., Medicare, may not cover colonoscopy for “constipation” or “weight loss” as the sole indication.

## CONTRAINDICATIONS TO COLONOSCOPY

Complete or high-grade colonic obstruction or suspected perforation are contraindications to colonoscopy. Other relative contraindications include the following: acute inflammation of the colon, pregnancy in the second or the third trimester, recent myocardial infarction, pulmonary embolism, large aortic aneurysm, and an uncooperative patient.

## SUMMARY

For the following points: (A), prospective controlled trials; (B), observational studies; (C), expert opinion.

- Patients with constipation should undergo colonoscopy if they have rectal bleeding, heme-positive stool, iron deficiency anemia, weight loss, obstructive symptoms, recent onset of constipation, rectal prolapse, or change in stool caliber (C).
- Chronic constipation may be a risk factor for colorectal cancer (B). For this reason, patients complaining of constipation who are over the age of 50 years and who have not previously had colon cancer screening should have a colonoscopy (C).
- In younger patients flexible sigmoidoscopy may be adequate (C).
- Colonoscopy allows dilation of benign colonic strictures in some patients (B).

## REFERENCES

1. Sonnenberg A, Koch TR. Physician visits in the United States for constipation: 1958-1986. *Dig Dis Sci* 1989;34:606-11.
2. Pare P, Ferrazzi S, Thompson WG, Irvine EJ, Rance L. An epidemiological survey of constipation in Canada: definitions, rates, demographics, and predictors of health care seeking. *Am J Gastroenterol* 2001;96:3130-7.
3. Heaton KW, Radvan J, Cripps H, Mountford RA, Braddon FE, Hughes AO. Defecation frequency and timing, and stool form in the general population: a prospective study. *Gut* 1992;33:818-24.
4. Johanson JF, Sonnenberg A, Koch TR. Clinical epidemiology of chronic constipation. *J Clin Gastroenterol* 1989;11:525-36.
5. Everhart JE, Go VL, Johannes RS, Fitzsimmons SC, Roth HP, White LR. A longitudinal survey of self-reported bowel habits in the United States. *Dig Dis Sci* 1989;34:1153-62.
6. Thompson WG, Longstreth GF, Drossman DA, Heaton KW, Irvine EJ, Muller-Lissner SA. Functional bowel disorders, and functional abdominal pain. *Gut* 1999;45(Suppl 2):II43-7.
7. Roberts MC, Millikan RC, Galanko JA, et al. Constipation, laxative use, and colon cancer in a North Carolina population. *Am J Gastroenterol* 2003;98:857-64.
8. Jacobs EJ, White E. Constipation, laxative use, and colon cancer among middle-aged adults. *Epidemiology* 1998;9:385-91.
9. Dukas L, Willett WC, Colditz GA, Fuchs CS, Rosner B, Giovannucci EL. Prospective study of bowel movement, laxative use, and the risk of colorectal cancer among women. *Am J Epidemiol* 2000;151:958-64.
10. Kune GA, Kune S, Field B, Watson LF. The role of chronic constipation, diarrhea, and laxative use in the etiology of large-bowel cancer. Data from the Melbourne Colorectal Cancer Study. *Dis Colon Rectum* 1988; 31:507-12.
11. Watanabe T, Nakaya N, Kurashima K, Kuriyama S, Tsubono Y, Tsuji I. Constipation, laxative use and risk of colorectal cancer: the Miyagi Cohort Study. *Eur J Cancer* 2004;40:2109-15.
12. Wald A. Approach to the patient with constipation. In: Yamada T, editor. *Textbook of gastroenterology*, 4th ed. Philadelphia: Lippincott, Williams and Wilkins; 2003. p. 894-910.
13. Taxman TL, Yulish BS, Rothstein FC. How useful is the barium enema in the diagnosis of infantile Hirschsprung's disease? *Am J Dis Child* 1986; 140:881-4.
14. Aldridge RT, Campbell PE. Ganglion cells distribution in the normal rectum and anal canal. A basis for diagnosis of Hirschsprung's disease by anorectal biopsy. *J Pediatr Surg* 1968;3:475-89.
15. Pepin C, Ladabaum U. The yield of lower endoscopy in patients with constipation: survey of a university hospital, a public county hospital and a veterans administration medical center. *Gastrointest Endosc* 2002;56:325-32.
16. Virgilio C, Cosentino S, Favara C, Russo V, Russo A. Endoscopic treatment of postoperative colonic strictures using an achalasia dilator: short-term and long-term results. *Endoscopy* 1995;27:219-22.
17. Truong S, Willis S, Schumpelick V. Endoscopic therapy of benign anastomotic strictures of the colorectum by electroincision and balloon dilatation. *Endoscopy* 1997;29:845-9.
18. Sabate JM, Villarejo J, Bouhnik Y, Allez M, Gornet JM, Vahedi K, et al. Hydrostatic balloon dilatation of Crohn's strictures. *Aliment Pharmacol Ther* 2003;18:409-13.
19. Morini S, Hassan C, Lorenzetti R, Zullo A, Cerro P, Winn S, et al. Long-term outcome of endoscopic pneumatic dilatation in Crohn's disease. *Dig Liver Dis* 2003;35:893-7.
20. Purcell L, Gremse DA. Sunflower seen bezoar leading to fecal impaction. *South Med J* 1995;88:87-8.
21. Ness RM, Manam R, Hoen H, Chalasani N. Predictors of inadequate bowel preparation for colonoscopy. *Am J Gastroenterol* 2001;96:1797-802.

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Prepared by:

STANDARDS OF PRACTICE COMMITTEE

Waqar Qureshi, MD

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