

ACG Clinical Guideline: Management of Benign Anorectal Disorders

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Abstract

These guidelines summarize the definitions, diagnostic criteria, differential diagnoses, and treatments of a group of benign disorders of anorectal function and/or structure. Disorders of function include defecation disorders, fecal incontinence, and proctalgia syndromes, whereas disorders of structure include anal fissure and hemorrhoids. Each section reviews the definitions, epidemiology and/or pathophysiology, diagnostic assessment, and treatment recommendations of each entity. These recommendations reflect a comprehensive search of all relevant topics of pertinent English language articles in PubMed, Ovid Medline, and the National Library of Medicine from 1966 to 2013 using appropriate terms for each subject. Recommendations for anal fissure and hemorrhoids lean heavily on adaptation from the American Society of Colon and Rectal Surgeons Practice Parameters from the most recent published guidelines in 2010 and 2011 and supplemented with subsequent publications through 2013. We used systematic reviews and meta-analyses when available, and this was supplemented by review of published clinical trials.

Introduction

Similar to recent guidelines (1,2), we used the GRADE (Grades of Recommendation Assessment, Development and Evaluation) system to assess the strengths of the recommendations and the overall quality of the evidence to support those recommendations. A strong recommendation was given if the committee felt that most individuals should receive the treatment and the recommendation would apply to most clinical situations, whereas a weak recommendation implies that clinicians should examine the available evidence themselves and future policy making will require debates and involvement of many stakeholders (3). Quality of evidence was considered high when available studies strongly suggest that further research is unlikely to alter our confidence about efficacy, moderate quality suggests that further research is likely to affect future recommendations, and low quality suggests that further research is very likely to affect future assessments and recommendations.

DEFECATORY DISORDERS

Diagnostic Assessment

Recommendations

- DDs are defined as difficulty in evacuating stool from the rectum in a patient with chronic or recurring symptoms of constipation (strong recommendation, moderate quality of evidence).
- Gastroenterologists and other providers should not make the diagnosis of DD on the basis of a single abnormal test because none is sufficiently specific. However, confidence in the diagnosis is increased if there is a combination of a clinical history of chronic constipation and two abnormal tests, i.e., impaired ability to evacuate a 50-ml water-filled balloon or abnormal defecography and evidence from pelvic floor EMG or ARM that the patient is unable to relax pelvic floor muscles or increase rectal pressure during simulated defecation (strong recommendation, moderate quality of evidence).
- Digital rectal examination is a useful first test to screen for DD, as it has good negative predictive value (weak recommendation, low quality of evidence).
- Barium or MR defecography can identify structural causes of outlet obstruction if one is expected. They may also confirm or exclude the diagnosis of DD when the clinical features suggest DD but the results of ARM and BET are equivocal (moderate recommendation, moderate quality of evidence).

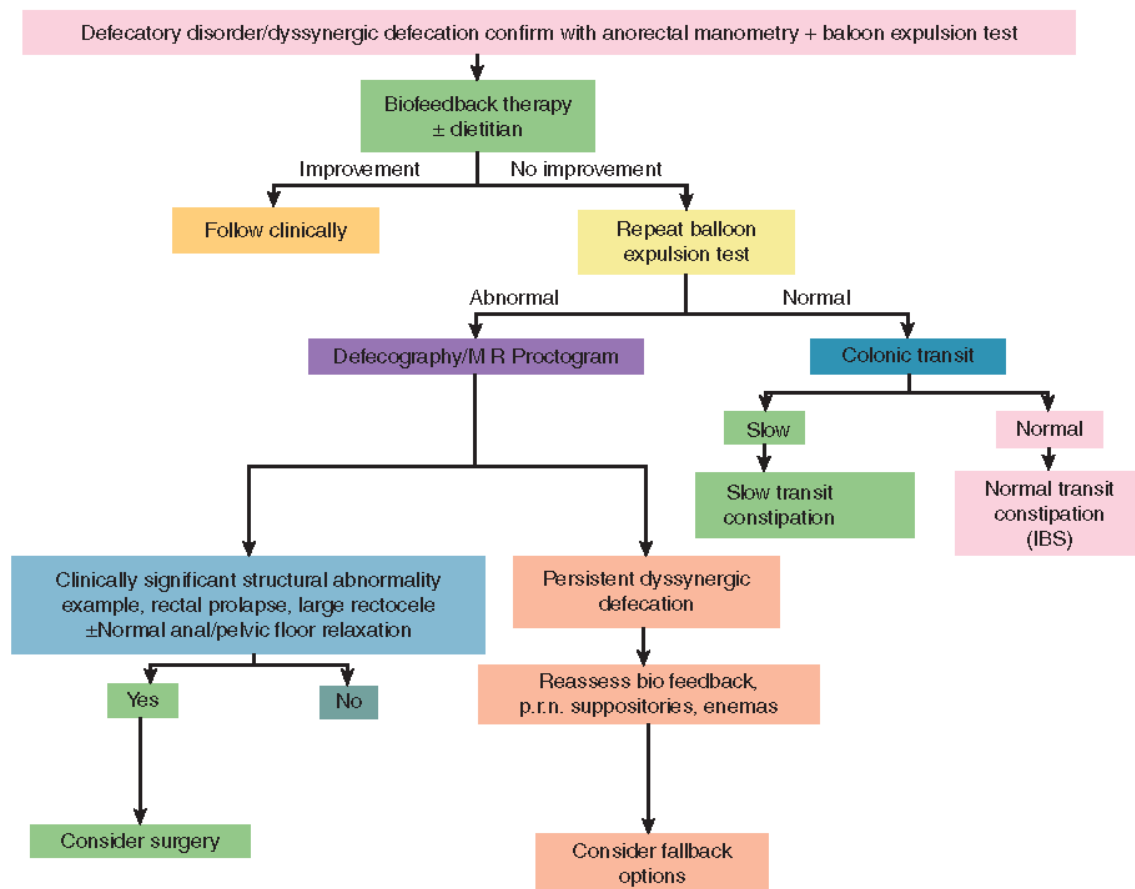


Figure 1. Suggested algorithm for the evaluation and management of defecatory disorders (DDs). IBS, irritable bowel syndrome; MR, magnetic resonance. Reproduced with permission from Bharucha and Rao (161).

Treatment of Disordered Defecation

Recommendations

5. Biofeedback is the preferred treatment for DD in adults (strong recommendation, moderate quality of evidence). The treatment protocols used in most RCTs include the following steps (24):
 - a. Patient education—explain to patients that they unconsciously squeeze their anus when they are trying to defecate and this holds the stool in the rectum.
 - b. Simulated defecation training—for patients who do not increase intraabdominal pressure during simulated defecation, the use of feedback on rectal balloon pressure teaches them to tighten their abdominal wall muscles and lower their diaphragm to push stool out.
 - c. Training to relax pelvic floor muscles while simulating defecation—for patients who paradoxically contract their pelvic floor muscles during simulated defecation, provide visual feedback on anal canal pressure or averaged EMG activity from the anal canal to teach this skill.
 - d. Practicing simulated defecation—patients practice defecation of a lubricated, inflated balloon while the therapist gently pulls on the catheter to assist them. Remind the patient to relax the pelvic floor muscles, increase abdominal pressure using abdominal wall muscles, and concentrate on the sensations produced by balloon passage.

PROCTALGIA SYNDROMES

Diagnostic Assessment

Recommendations

1. Gastroenterologists and other providers should make a diagnosis of chronic proctalgia based on a history of recurring episodes of rectal pain, each lasting at least 20 minutes, a digital rectal examination showing tenderness to palpation of the levator ani muscles, and exclusion of other causes for rectal pain by history and diagnostic testing (strong recommendation, moderate quality of evidence).
2. Gastroenterologists and other providers should obtain an imaging study or endoscopy to rule out structural causes of rectal pain (strong recommendation, low quality of evidence).
3. Gastroenterologists and other providers should obtain a BET and ARM to identify patients with chronic proctalgia and levator muscle tenderness who are likely to respond to biofeedback (strong recommendation, high quality of evidence).

Treatment

Recommendations

4. Biofeedback to teach relaxation of pelvic floor muscles during simulated defecation is the preferred treatment. (strong recommendation, moderate quality of evidence).
5. Electrical stimulation is superior to digital massage but inferior to biofeedback (moderate recommendation, low quality of evidence).

Diagnostic Assessment

Recommendations

- Gastroenterologists and other providers should make a diagnosis of proctalgia fugax on the basis of a history of intermittent bouts of severe pain in the anal canal or lower rectum lasting less than 20 minutes (strong recommendation, low quality of evidence).
- Gastroenterologists and other providers should exclude structural causes of anorectal pain (e.g., anal fissure, hemorrhoids, cryptitis, malignancy) by imaging, endoscopy, or other appropriate tests (strong recommendation, low quality of evidence).

Treatment

Recommendation

- Gastroenterologists and other providers should assure patients that the disorder is benign. The evidence for specific treatments is no better than anecdotal (moderate recommendation, low quality of evidence).

FECAL INCONTINENCE

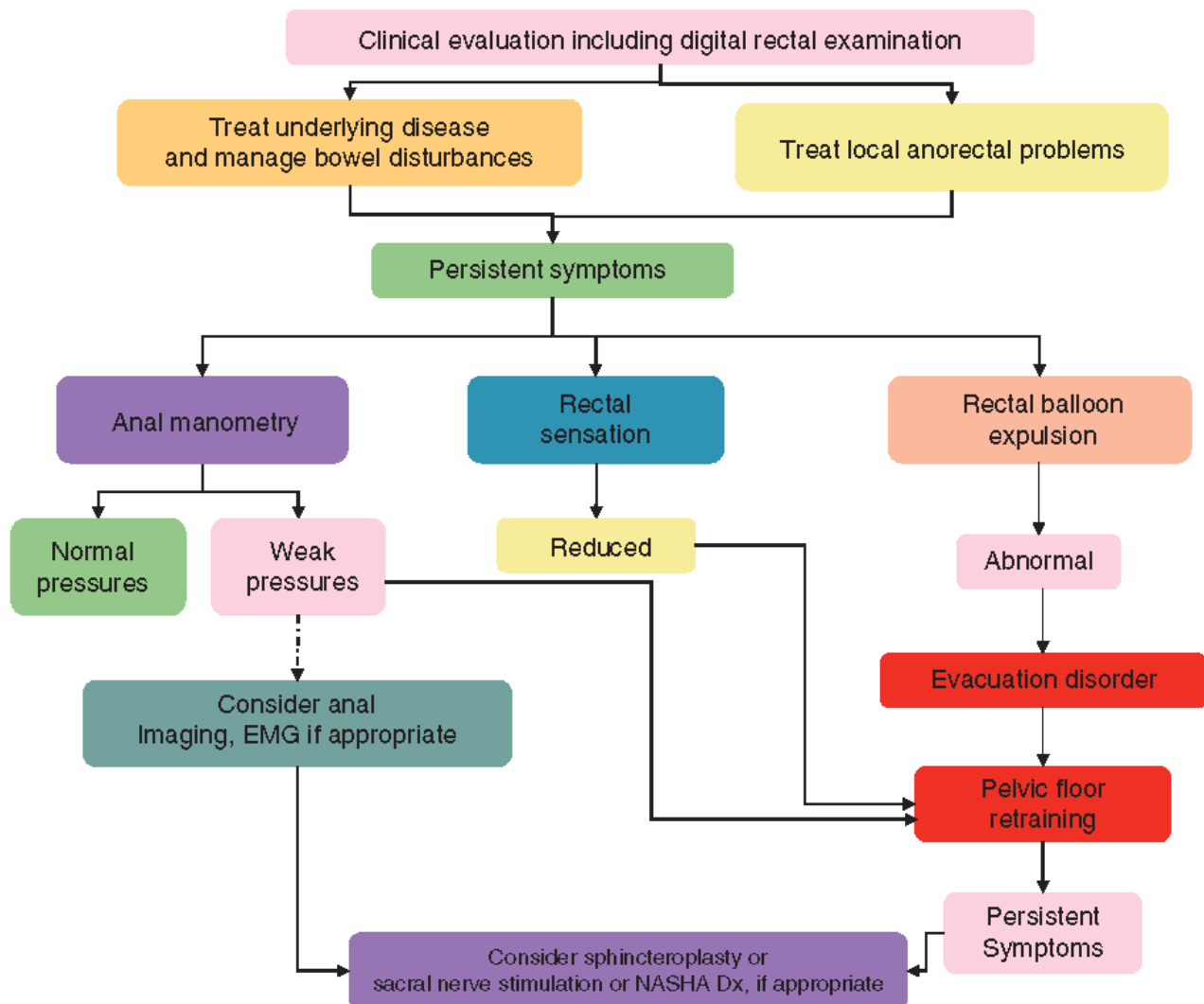


Figure 2. Suggested algorithm for evaluation and management of fecal incontinence.

Diagnostic Assessment

Recommendations

1. Gastroenterologists and other providers should ask patients about the presence of FI directly rather than relying on spontaneous reporting (strong recommendation, high quality of evidence).
2. Gastroenterologists and other providers should identify conditions that may predispose to FI, as shown in **Table 3** (strong recommendation, high quality of evidence).
3. Gastroenterologists and other providers should determine symptom severity by quantifying stool type using the Bristol stool scale, as well as characterizing the frequency, amount of leakage, and the presence of urgency (strong recommendation, moderate quality of evidence).
4. Gastroenterologists and other providers should obtain bowel diaries because they are superior to self-reports for characterizing bowel habits and FI (strong recommendation, moderate quality of evidence).

Table 3. Common causes of fecal incontinence

Anal sphincter weakness

Traumatic: obstetric, surgical (e.g., fistulotomy, internal sphincterotomy)

Nontraumatic: scleroderma, internal sphincter degeneration of unknown etiology

Neuropathy: peripheral (e.g., pudendal) or generalized (e.g., diabetes mellitus)

Disturbances of pelvic floor: rectal prolapse, descending perineum syndrome

Inflammatory conditions: radiation proctitis, Crohn's disease, ulcerative colitis

Central nervous system disorders: dementia, stroke, brain tumors, multiple sclerosis, spinal cord lesions

Diarrhea: irritable bowel syndrome, post-cholecystectomy diarrhea

Other: fecal retention with overflow, behavioral disorders

Reproduced and modified with permission from Bharucha (160).

Physical Examination

Recommendations

5. Gastroenterologists and other providers should perform a physical examination to eliminate diseases to which FI is secondary (strong recommendation, moderate quality of evidence).
6. Gastroenterologists and other providers should perform a digital anorectal examination to identify rectal masses, gauge anal sphincter tone at rest, during voluntary contraction of the anal sphincter and pelvic floor muscles, and during simulated defecation (75) (strong recommendation, moderate quality of evidence).
7. Gastroenterologists and other providers should perform a digital rectal examination before making a referral for anorectal manometry (strong recommendation, moderate quality of evidence).

Diagnostic Testing

Recommendations

8. ARM, BET, and rectal sensation should be evaluated in patients who fail to respond to conservative measures (strong recommendation, moderate quality of evidence).
9. Pelvic floor and anal canal imaging, as well as anal EMG, should be considered for patients with reduced anal pressures who have failed conservative therapy, particularly if surgery is being considered (strong recommendation, moderate quality of evidence).

Nonsurgical Treatments

Recommendations

10. Gastroenterologists and other providers should manage patients with FI using education, dietary modifications, skin care, and pharmacologic agents to modify stool delivery and liquidity before diagnostic testing, particularly when symptoms are mild and not bothersome (strong recommendation, moderate quality of evidence).
11. Gastroenterologists and other providers should prescribe antidiarrheal agents for FI in patients with diarrhea (strong recommendation, low quality of evidence).
12. Pelvic floor rehabilitative techniques are effective and superior to pelvic floor exercises alone in patients with FI who do not respond to conservative measures (strong recommendation, moderate quality of evidence).

Minimally Invasive Procedures

Recommendations

13. Minimally invasive procedures such as injectable anal bulking agents may have a role in patients with FI who do not respond to conservative therapy (weak recommendation, moderate-quality of evidence).
14. There is insufficient evidence to recommend radiofrequency ablation treatment to the anal sphincter (SECCA) at this time (no recommendation, insufficient evidence).

Surgical Treatments

Recommendations

15. Sacral nerve stimulation should be considered in patients with FI who do not respond to conservative therapy (strong recommendation, moderate quality of evidence).
16. Anal sphincteroplasty should be considered in patients with FI who do not respond to conservative therapy and who have an anatomic sphincter defect (weak recommendation, low quality of evidence).
17. Dynamic graciloplasty and artificial anal sphincter, where available, may possibly allow the occasional patient with FI to avoid colostomy (weak recommendation, insufficient evidence).
18. Colostomy is a last resort procedure that can markedly improve the quality of life in a patient with severe or intractable FI (strong recommendation, low quality of evidence).

ANAL FISSURE

Treatment of Acute Anal Fissure

Recommendation

1. Gastroenterologists and other providers should use nonoperative treatments such as sitz baths, psyllium fiber, and bulking agents as the first step in therapy of acute fissure (strong recommendation, moderate quality of evidence).

Treatment of Chronic Anal Fissure

Recommendations

2. Gastroenterologists and other providers should treat chronic anal fissure with topical pharmacologic agents such as calcium channel blockers or nitrates (strong recommendation, moderate quality of evidence).
3. Gastroenterologists and other providers should refer patients who do not respond to conservative or pharmacologic treatment for local injections of botulinum toxin (strong recommendation, low quality of evidence) or surgical internal anal sphincterotomy (strong recommendation, high quality of evidence).

HEMORRHOIDS

Diagnostic Assessment

Recommendation

1. Gastroenterologists and other providers should diagnose hemorrhoids by history and physical examination. If there is bleeding, the source often requires confirmation by endoscopic studies (strong recommendation, moderate quality of evidence).

Treatment of Thrombosed External Hemorrhoid

Recommendation

2. Most patients who present urgently (within ~3 days of onset) with a thrombosed external hemorrhoid benefit from excision (strong recommendation, low quality of evidence).

Treatment of Internal Hemorrhoids

Recommendations

3. Gastroenterologists and other providers should treat patients with symptomatic hemorrhoids first with increased fiber intake and adequate fluids (strong recommendation, moderate quality of evidence).
4. Gastroenterologists and other providers should consider patients with first- to third-degree hemorrhoids that remain symptomatic after dietary modifications for office procedures such as banding, sclerotherapy, and infrared coagulation. Ligation is probably the most effective option (strong recommendation, moderate-quality of evidence).
5. Gastroenterologists and other providers should refer for surgical operations (hemorrhoidectomy, stapled hemorrhoidopexy, and Doppler-assisted hemorrhoidal artery ligation) those patients who are refractory to or cannot tolerate office procedures, who have large, symptomatic external tags along with their hemorrhoids, who have large third-degree hemorrhoids, or who have fourth-degree hemorrhoids (strong recommendation, moderate quality of evidence).