American Gastroenterological Association Medical Position Statement: Irritable Bowel Syndrome

This document presents the official recommendations of the American Gastroenterological Association (AGA) on Irritable Bowel Syndrome. It was approved by the Clinical Practice committee on August 5, 2002 and by the AGA Governing Board on September 13, 2002.

The following guidelines, based on a comprehensive review,[1] were developed as an update to assist the physician in the clinical understanding, diagnosis, and management of patients with irritable bowel syndrome (IBS). They may also be of assistance to allied health care professionals, the pharmaceutical industry, and regulatory agencies. IBS is a functional bowel disorder characterized by symptoms of abdominal pain or discomfort and associated with disturbed defecation.[2] The syndrome is understood in terms of multiple physiological determinants contributing to a common set of symptoms rather than as a single disease entity. Current and future diagnostic approaches and treatments will depend on identifying the specific pathophysiological subgroups contributing to these symptoms.

Pathophysiology of IBS Symptoms

The symptoms of IBS have a physiological basis. Although no specific physiological mechanism is unique to, or characterizes IBS, there are at least 3 interrelated factors that affect symptoms to varying degrees in individuals with IBS: (1) altered gut reactivity (motility, secretion) in response to luminal (e.g., meals, gut distention, inflammation, bacterial factors) or provocative environmental (psychosocial stress) stimuli, resulting in symptoms of diarrhea and/or constipation; (2) a hypersensitive gut with enhanced visceral perception and pain; and (3) dysregulation of the brain-gut axis, possibly associated with greater stress-reactivity and altered perception and/or modulation of visceral afferent signals. Brain-gut axis dysregulation may also play a role in the subgroups of patients who have gut inflammatory and immune factors persisting following infection or inflammation of the bowel. Further studies are needed to characterize the precise role of these factors in IBS and to identify physiological subgroups more amenable to specific treatments.

Role of Psychosocial Factors in IBS

Although IBS patients show enhanced stress responsiveness, and more severe and prolonged impairment of bowel function related to various inciting factors, specific psychosocial factors are not characteristic of the disorder; they are not considered in diagnosis. However, their identification may help in planning psychological or psychopharmacological treatment, particularly for those with more moderate or severe symptoms, where psychosocial factors contribute to the clinical presentation.

Psychological stress and other psychosocial factors may exacerbate gastrointestinal (GI) symptoms via alterations in gut motility, epithelial function, or perception of visceral stimuli or may modify illness experience and behaviors including pain reporting, physician visits, medication use, or the seeking of alternative medical treatment. A history of major life stress (e.g., abuse, family death, or divorce), comorbid psychiatric disorders, or maladaptive coping style strongly influence the clinical outcome. Because psychosocial factors affect health care seeking, patients with IBS seen at referral centers usually have greater psychological disturbances than patients seen in primary care or nonpatients in the community. Finally, IBS adversely affects health-related quality of life, including impairment of physical, psychosocial, emotional, and role function to a degree exceeding that found in most patients with other medical disorders.

An integrative biopsychosocial model[3] is needed to understand the multiple factors contributing to symptom generation and experience. The challenge faced by clinicians and investigators is to determine for each individual the degree to which each of these interacting factors are identifiable and remediable using current therapeutic options.

Diagnosis

Symptom-Based Criteria

A diagnosis is based on identifying positive symptoms (e.g., Rome criteria) consistent with the condition (Table 1) and excluding other conditions with similar clinical presentations in a cost-effective manner.

Physical Examination and Investigations

A medical history and physical examination, and certain routine studies, are recommended to assess the presence of "alarm signs" or "red flags" (fever, weight loss, blood in stools, anemia, abnormal physical findings

Table 1. Rome II Diagnostic Criteria For Irritable Bowel Syndrome[2]

At least 12 weeks, which need not be consecutive, in the preceding 12 months of abdominal discomfort or pain that has 2 of 3 features:
1. Relieved with defecation; and/or
2. Onset associated with a change in frequency of stool; and/or
3. Onset associated with a change in form (appearance) of stool.

Symptoms that cumulatively support the diagnosis of IBS
1. Abnormal stool frequency (for research purposes, "abnormal" may be defined as greater than 3 bowel movements per day and less than 3 bowel movements per week);
2. Abnormal stool form (lumpy/hard or loose/watery stool);
3. Abnormal stool passage (straining, urgency, or feeling of incomplete evacuation);
4. Passage of mucus;
5. Bloating or feeling of abdominal distention.

The diagnosis of a functional bowel disorder always presumes the absence of a structural or biochemical explanation for the symptoms.

NOTE. Evaluation also includes a complete physical examination, sigmoidoscopy, and additional testing when indicated. Other studies may include examination of the stool (ova and parasites, occult blood, laxatives), complete blood count, sedimentation rate, and serum chemistries. In certain cases, imaging studies (e.g., upper gastrointestinal series, colonoscopy with rectal biopsy) will be needed.

or blood studies, family history of IBD or cancer) that might require more extensive evaluation. Evidence-based data are limited and are in the process of being developed. Therefore, the current recommendations are culled from consensus documents and review of existing studies. For screening purposes, a stool Hemoccult and complete blood count are recommended. A sedimentation rate (more so in younger patients), serum chemistries and albumin, and stool for ova and parasites can be ordered based on symptom pattern, geographic area, and relevant clinical features (e.g., predominant diarrhea, areas of endemic infection). A colonoscopy is recommended for patients over age 50 years (due to higher pretest probability of colon cancer), but in younger patients, performing a colonoscopy or sigmoidoscopy is determined by clinical features suggestive of disease (e.g., diarrhea, weight loss) and may not be indicated.

Other diagnostic studies will depend on the symptom subtype. For example, for constipation-predominant symptoms, a therapeutic trial of fiber may be sufficient. However, if symptoms are persistent, confirmation of slow colonic transit with a whole gut transit test or evaluation for obstructed defecation with anorectal motility or defecating proctography may be indicated. For diarrhea-predominant symptoms, clinical judgment will determine the choice of studies. Particularly for loose/watery stools, a lactose/dextrose H_2 breath test and serologies for celiac sprue or small bowel (for giardia, small bowel malabsorption) or colonic (for microscopic colitis) biopsies may be indicated. However, controversy exists about the threshold for ordering these tests, given limited evidence as to their sensitivity, specificity, and cost-utility. If negative, a therapeutic trial of loperamide can be ordered. For patients with pain as the predominant symptom, a plain abdominal radiography during an acute episode to exclude bowel obstruction and other abdominal pathology is recommended. If negative, a therapeutic trial of an antispasmodic can be ordered. Further imaging studies (e.g., small bowel series, computerized tomography scan) of the bowel and other evaluation strategies may be modified based on the duration and severity of symptoms, changes in symptom type, or severity over time and demographic or psychosocial factors.

Treatment can then be started and the patient's condition reevaluated in 3–6 weeks. If treatment is unsuccessful, or if further evaluation seems needed, additional studies based on symptom subtype can then be undertaken.[1]

Treatment

The treatment strategy is based on the nature and severity of the symptoms, the characteristics and degree of functional impairment, and the presence of psychosocial difficulties affecting the course of the illness. Patients with mild symptoms usually respond to education, reassurance, and simple treatments not requiring prescription medication. A smaller group of patients with moderate symptoms have more disability and require pharmacological treatments directed at altered gut physiology or psychological treatments. The very small proportion of patients with severe and refractory symptoms are frequently seen at referral centers and have more constant pain and psychosocial disablement. They may benefit from antidepressant treatment, psychological treatments and support, and in occasional cases, referral to a multidisciplinary pain center.

Components of the Treatment Strategy

General treatment approach. For all patients, the physician should establish an effective therapeutic relationship, provide patient education and reassurance, and help with dietary and lifestyle modifications when needed. Symptom monitoring using a diary may help identify possible triggers to symptom exacerbation and may guide choices for psychological and other treatments.

Medication directed at the predominant symptom(s). For abdominal pain, consider antispasmodic (anticholinergic) medication, particularly when symptoms

are exacerbated by meals, or a tricyclic antidepressant (TCA), particularly if pain is frequent or severe (see below). For constipation, increased dietary fiber (25 g/day) is recommended for simple constipation, although evidence of its effectiveness in reducing pain is mixed. For diarrhea, loperamide (2–4 mg, up to four times daily) can reduce loose stools, urgency, and fecal soiling. Cholestyramine may be considered for patients with cholecystectomy or who may have idiopathic bile acid malabsorption. Newly released agents acting at the 5-HT receptor may help painful symptoms, and must be used based on whether the stool habit is primarily diarrhea (e.g., alosetron) or constipation (e.g., tegaserod). No data exist as to the role in mixed or alternating IBS, and recommendations as to their use as first or second line treatments need to be determined based on issues of efficacy, safety, and cost. Other receptor active agents for IBS are currently under active investigation.

Psychological treatments. Psychological treatments are initiated when symptoms are severe enough to impair health-related quality of life. Mental health referral may also be made for treatment of associated psychiatric disorders such as major depression or a history of abuse that interferes with adjustment to illness. To enhance patient motivation, the physician needs to explain that along with the primary care physician, the mental health professional is part of the treatment team involved in the overall plan of care.

Cognitive-behavioral treatment, dynamic (interpersonal) psychotherapy, hypnosis, and stress management/relaxation seem to be effective in reducing abdominal pain and diarrhea (but not constipation), and also reduce anxiety and other psychological symptoms. Improvement may relate to changes in GI physiology, improved coping strategies, or in the interpretation of enteroceptive signals from the gut. Greater benefit may be expected in patients who relate symptom exacerbations to stressors, have associated symptoms of anxiety or depression, or have symptoms of a relatively short duration, and have a waxing and waning of symptoms rather than chronic pain. No one psychological treatment seems superior, and future studies need to determine the relative efficacy of these treatments for various subgroups of patients.

Centrally acting medications. Antidepressants are recommended for moderate to severe symptoms of pain and may be helpful for less severe symptoms. They have neuromodulatory and analgesic properties independent of their psychotropic effect and alter GI physiology (e.g., visceral sensitivity, motility, and secretion). In general, these benefits occur sooner and in lower dosages than when prescribed for treatment of major depression. Most studies showing benefit have evaluated TCAs (e.g., amitriptyline, desipramine), rather than selective serotonin reuptake inhibitors (SSRIs) (e.g., fluoxetine, paroxetine, sertraline) in IBS, and no comparative studies have been done. However, SSRIs are in use, particularly for patients with comorbid psychiatric (e.g., anxiety-related) disorders, and they have low side effect profiles and better safety than the TCAs. Anxiolytics are generally not recommended because of weak treatment effects, a potential for physical dependence, and interaction with other drugs and alcohol.

Conclusions

IBS is a true medical disorder with significant impact on those afflicted with regard to symptom severity, disability, and impaired quality of life, and there is a burden to society in terms of direct health care costs and indirect effects including work absenteeism, which exceeds that of most GI disorders. Studies are needed to understand the mechanisms underlying these symptoms and to develop effective treatments. Currently, evidence exists for a diagnostic and treatment approach based on predominant symptom type, its severity, and any associated psychosocial features.

References

1. Drossman DA, Camilleri M, Mayer E, Whitehead WE. AGA technical review on irritable bowel syndrome. Gastroenterology 2002;123:2108–2131.
2. Thompson WG, Longstreth GF, Drossman DA, Heaton KW, Irvine EJ, Mueller-Lissner SA. C. Functional bowel disorders and D. Functional abdominal pain. In: Drossman DA, Talley NJ, Thompson WG, Whitehead WE, Corazziari E, eds. Rome II: Functional gastrointestinal disorders: diagnosis, pathophysiology, and treatment. 2 ed. McLean, VA: Degnon Associates, 2000:351–432.
3. Drossman DA. Presidential address: gastrointestinal illness and biopsychosocial model. Psychosom Med 1998;60:258–267.

Address requests for reprints to: Chair, Clinical Practice Committee, AGA National Office, c/o Membership Department, 7910 Woodmont Avenue, 7th Floor, Bethesda, Maryland 20814. Fax: (301) 654-5920.

0016-5085/02/$35.00
doi:10.1053/gast.2002.37095