Ulcerative Colitis: Diagnosis and Management

Case Study and Commentary, Paul T. Kefalides, MD, and Stephen B. Hanauer, MD

Ulcerative colitis is a chronic inflammatory bowel disease of the colon that has become increasingly common in first world countries. Ulcerative colitis and Crohn’s disease comprise the spectrum of inflammatory bowel disease. These diseases affect approximately 400,000 individuals in the United States, and their economic impact has been estimated at $2 billion annually [1].

Ulcerative colitis and Crohn’s disease share many epidemiologic features. They can affect individuals of any age-group, although they typically begin in the second or third decade. They are most common in developed countries and can occur in individuals, or more commonly their descendants, who have moved from second or third world countries to more industrialized environments. These disorders have a genetic component and occur more often in families where another individual has the diagnosis. Approximately 10% to 30% of patients with inflammatory bowel disease report having a family member with inflammatory bowel disease [2]. Certain environmental factors, particularly cigarette smoking, affect the development and course of these diseases.

In order to diagnose inflammatory bowel disease and to distinguish ulcerative colitis from other diarrheal disorders, the physician must review the patient’s history and integrate historical information with physical examination, laboratory, endoscopic, and pathologic findings. Inflammatory bowel disease in general, and ulcerative colitis specifically, are lifelong disorders that greatly influence overall health, healthcare utilization, and quality of life. Several studies have shown, however, that life expectancy in patients with ulcerative colitis is normal, especially in those with mild or limited disease [3]. Therefore, the goals of management of this chronic inflammatory disease are to induce and then maintain clinical remission while minimizing the risk of complications related to the disease or the medications used to treat it. Currently, ulcerative colitis can be cured only by surgery.

CASE STUDY

Initial Presentation and History

A 23-year-old woman with a history of dysmenorrhea associated with abdominal cramping presents to her primary care physician with complaints of episodic diarrhea and blood-streaked stools for the past year that have become more bothersome over the past 4 weeks. She reports loose stools with increasing amounts of blood and abdominal cramping for 4 days. She denies any fever or chills. Her appetite has been poor for the last 3 days. She has no history of recent travel and has not been eating out.

• What information should be sought when a patient presents with diarrhea?

For any patient presenting with chronic diarrhea, the primary care physician must try to distinguish between pathologic causes and irritable bowel syndrome. Irritable bowel syndrome is the most common cause of loose bowel movements associated with abdominal cramping; in this condition loose bowel movements often alternate with constipation. In contrast to inflammatory bowel disease, irritable bowel syndrome is not associated with blood in the stool, nocturnal bowel movements, weight loss, or other inflammatory sequelae (eg, fever, arthritis, skin or eye lesions, or perianal disease). The presence of blood or pus (fecal leukocytes) is associated with inflammation or neoplasia; in contrast, mucus is a normal constituent in stool and neither its presence nor its absence has any specificity for either condition. In addition, specific risk factors for diarrheal illness should be sought, such as recent antibiotic use (risk of Clostridium difficile infection), other contacts who have acute or chronic diarrhea, or recent travel.

Further History

Upon further questioning, the patient reports that her bowel movements are sometimes dark and watery. She reports moving her bowels about 5 times per day and about 2 to 3 times during the night. She has seen blood mixed with the stool but believes the blood is coming from a hemorrhoid, although she has never noted anal skin tags. Her only medications are vitamins and occasional ibuprofen for menstrual cramps. She has no allergies and no
history of hospitalization or surgery. The family history is notable for “spastic colon” in her mother and “colitis” in her father’s brother. The patient has 2 siblings who are well. She is a graduate student in the humanities and works part-time in an office. She was a smoker while in high school and in undergraduate college but quit about 6 months ago. She typically has 1 to 3 alcoholic drinks on the weekends and denies drug use and HIV risk factors.

• What additional risk factors for inflammatory bowel disease are present in this history?

The patient’s report of blood in the stool or at the time of bowel movements is highly suggestive of an inflammatory diarrhea with loss of mucosal integrity. The diarrhea may be infectious or may represent inflammatory bowel disease. Nocturnal bowel movements are almost never seen in irritable bowel syndrome but are common in inflammatory bowel disease. Recent cessation of smoking is a known risk factor for development of ulcerative colitis. For an as yet unknown reason, cigarette smoking protects against the development of ulcerative colitis but is associated with the development of Crohn’s disease [4]. Nonsteroidal anti-inflammatory drugs (NSAIDs) such as ibuprofen disrupt gastrointestinal mucosal integrity and may precipitate or cause a flare of inflammatory bowel disease. Because there is a genetic predisposition for inflammatory bowel disease, a family history of “colitis” may reflect either irritable bowel syndrome or inflammatory bowel disease, depending upon the validity of the described family history. All these factors should heighten the suspicion for inflammatory bowel disease as the cause of this patient’s symptoms.

Physical Examination

On physical examination, the patient is slim and slightly pale. Her temperature is 37.8°C, heart rate is 90 bpm, and blood pressure is 110/60 mm Hg. Her oral mucosa is dry. There is no adenopathy in the cervical chain. She has a mid-systolic click on cardiac examination and clear lungs. Her abdomen is flat with normal bowel sounds. There is mild tenderness diffusely but no rebound or guarding. The rectal examination shows no external lesions and no stool is obtainable, but the mucus on the glove is positive for occult blood. The patient’s skin appears normal. Musculoskeletal examination shows no joint swelling or tenderness.

• What physical findings are important in a patient with ulcerative colitis?

The physical examination in ulcerative colitis may be normal or may represent subtle changes due to the presence of the colitis. The subtle findings to note in a patient with suspected inflammatory bowel disease include pallor (anemia), ocular inflammation (episcleritis or iritis), oral ulcers, skin lesions (erythema nodosum, pyoderma gangrenosum), perianal skin tags or fistulae (associated with Crohn’s disease), or large-joint arthritis. In severe ulcerative colitis, weight loss, fever, and tachycardia may be seen. The abdominal examination may show generalized tenderness in the setting of active disease, or it may be normal. In severe colitis, the abdomen will have decreased or absent bowel sounds, distension, and tympany. The latter are ominous changes that can reflect the development of toxic megacolon, a dilation of the colon with thinning of the colonic wall that can lead to perforation.

Laboratory Examination

The physician orders a comprehensive metabolic profile, complete blood count with differential, and erythrocyte sedimentation rate (ESR). Stool samples are sent for testing for microbial pathogens. The results of testing are as follows:

<table>
<thead>
<tr>
<th>Test</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium</td>
<td>39 mEq/L</td>
</tr>
<tr>
<td>Potassium</td>
<td>3.4 mEq/L</td>
</tr>
<tr>
<td>Chloride</td>
<td>101 mEq/L</td>
</tr>
<tr>
<td>Bicarbonate</td>
<td>21 mEq/L</td>
</tr>
<tr>
<td>Blood urea nitrogen</td>
<td>30 mg/dL</td>
</tr>
<tr>
<td>Creatinine</td>
<td>0.7 mg/dL</td>
</tr>
<tr>
<td>Albumin</td>
<td>3.2 g/dL</td>
</tr>
<tr>
<td>Total protein</td>
<td>6.7 g/dL</td>
</tr>
<tr>
<td>Alkaline phosphatase</td>
<td>110 U/L</td>
</tr>
<tr>
<td>Total bilirubin</td>
<td>0.7 mg/dL</td>
</tr>
<tr>
<td>Aspartate aminotransferase</td>
<td>45 U/L</td>
</tr>
<tr>
<td>Leukocyte count</td>
<td>10,900/mm³</td>
</tr>
<tr>
<td>Hemoglobin</td>
<td>11.3 g/dL</td>
</tr>
<tr>
<td>Hematocrit</td>
<td>33.2 mL/dL</td>
</tr>
<tr>
<td>Platelets</td>
<td>368,000/mm³</td>
</tr>
<tr>
<td>ESR</td>
<td>73 mm/hr</td>
</tr>
</tbody>
</table>

Testing of stool for ova and parasites and culture for C. difficile toxin are negative. A test for fecal leukocytes is positive.

• How do these laboratory findings help focus the differential diagnosis?

The presence of fecal leukocytes is diagnostic for inflammatory diarrhea, while the negative cultures and absence of C. difficile toxin along with the long duration of symptoms exclude many acute infectious causes of diarrhea. The anemia and thrombocytosis are indicative of a chronic process.
with a high likelihood of inflammation and/or iron deficiency. The electrolyte values confirm the physical examination findings of volume depletion, and the hypokalemia is consistent with the history of chronic diarrhea. The hypoalbuminemia may reflect loss of protein from damaged colonic mucosa or may be a consequence of malnutrition in the setting of systemic inflammation.

• What are the indications for endoscopy in a patient presenting with diarrhea?

Flexible sigmoidoscopy or colonoscopy is indicated for evaluation of diarrhea when diarrhea is persistent, when noninvasive tests do not reveal a pathogen, or when inflammatory symptoms or signs are present. A recent study showed that for patients with diarrhea, examination and biopsy of the distal colon is 99% sensitive for colonic pathology [5]. Endoscopic examination can provide supportive evidence of colonic inflammation, allow for tissue or stool sampling, and evaluate the extent and severity of disease. Severity in ulcerative colitis can be judged by the extent and degree of the colonic injury as seen on endoscopy. In mild cases of ulcerative colitis, only a small area of the distal colon is involved, while in severe cases, there can be pancolitis. The inflammatory injury in the colon progresses from a loss of vascular pattern with granularity and friability in mild cases to superficial ulceration in patients with moderate severity and then on to deep ulceration with overlying mucopus in the extremely severe cases. Clinically, there may be markers for severe inflammation. Generally, patients with a more rapid onset of symptoms and more impressive signs of systemic inflammation are noted to have more severe colitis at endoscopy.

Although flexible sigmoidoscopy is an efficient way to evaluate a patient with diarrhea, if the sigmoidoscopy leads to a diagnosis of inflammatory bowel disease, a full colonoscopy is indicated to examine the entire colon for discontinuous areas of inflammation, known as skip lesions, and to visualize the terminal ileum.

Endoscopic Evaluation and Biopsy

The physician performs a flexible sigmoidoscopy examination that reveals a diffuse pattern of erythema, superficial ulceration, friability, and mucopus extending in a continuous pattern from the anal verge to the splenic flexure. A demarcation is noted at 55 cm from the anal verge. The mucosa proximal to this point appear normal. Biopsies are taken from both the affected and normal-appearing areas.

Pathologic examination of the biopsy samples reveals diffuse, continuous crypt architectural distortion with crypt abscesses and expanded acute and chronic inflammatory cells in the lamina propria from the macroscopically involved areas. The biopsy samples taken from normal-appearing mucosa are entirely normal.

• What are the pathologic features of ulcerative colitis?

Pathology

Histologic examination for ulcerative colitis in a patient with acute symptoms usually shows an inflammatory infiltrate consistent with acute colitis with polymorphonuclear cells and background findings of chronic inflammation. These features of chronic inflammation—cryptitis and crypt abscesses—indicate the presence of concomitant chronic inflammation and help distinguish inflammatory bowel disease from acute self-limited colitis (a sudden inflammatory injury to the colon that spontaneously remits, such as infectious colitis, ischemic colitis, and NSAID colitis). None of these features is specific for ulcerative colitis—they can be present in infectious colitis or other inflammatory conditions, such as Crohn’s disease [6]. A pathologist’s experience with inflammatory bowel disease will determine how easily he or she can differentiate it from acute self-limited colitis. The conditions that are most commonly confused with inflammatory bowel disease are Campylobacter and Yersinia infections, amebic infections of the colon, and ischemic colitis [7]. The differential diagnosis of ulcerative colitis is shown in Table 1.

Distinguishing ulcerative colitis from Crohn’s disease also is important because treatments and anticipated complications will differ. Because it is sometimes not possible to make this distinction early in the course of disease, some patients are given a diagnosis of “indeterminate colitis.” As the disease develops, it will likely begin to fit a pattern that is more consistent with either ulcerative colitis or Crohn’s disease. Distinguishing infectious colitis from inflammatory bowel disease or ischemic colitis by endoscopy alone may not be possible, although the endoscopic impression may be consistent with the clinical diagnosis. A affected mucosa in ulcerative colitis can regenerate and heal to a virtually normal appearance; therefore, for long-standing cases, biopsies are useful to identify histologic changes of chronic inflammatory bowel disease (crypt architectural distortion) or other forms of “microscopic colitis” (eg, collagenous colitis). Biopsy of normal and abnormal mucosa is required to reveal quiescent colitis and to determine if skip lesions are present. Skip lesions are seen in Crohn’s disease, but the inflammation of ulcerative colitis is usually in a continuous pattern [7].

Histology may also help predict the future severity of a patient’s ulcerative colitis course. A recent study that evaluated clinical factors that predict frequent relapses of ulcerative
colitis identified heavy infiltration of plasma cells into the lamina propria as an independent predictor of more frequent flares [8]. Microscopic erosions seen in macroscopically intact mucosa have also been cited as a predictor of relapse [9]. Further research that identifies such histologic criteria may allow subgroups of patients who are at high risk of relapse to be targeted with more aggressive medical therapy.

• What serologic tests can be performed to distinguish ulcerative colitis from Crohn’s disease?

Serology Tests
In the past 10 years, the perinuclear antineutrophil cytoplasmic antibody (p-ANCA) and antischizomyces cerevisiae antibody (ASCA) serum assays have emerged as useful adjuncts in the classification of patients with indeterminate colitis. In the clinical context of idiopathic colitis, a positive p-ANCA test predicts ulcerative colitis with high specificity [10]. Similarly, an indeterminate colitis patient with ASCA-positive serum is likely to experience a clinical course consistent with Crohn’s disease. These markers are not sensitive enough to allow them to be used as screening tests in the general population. P-ANCA and ASCA status may be more useful as a confirmatory test in the pediatric population, where they have been shown to have high specificity [11] and where endoscopic evaluation is more difficult. In adults, the serologic tests can help predict the type of course a patient will experience and thereby aid with medical and surgical decision making. Moreover, several studies have shown that p-ANCA titers correlate with disease activity or may predict the post-surgical complication of pouchitis in patients with ulcerative colitis who undergo colectomy and ileal-anal J-pouch anastomosis [12,13].

Diagnosis
The physician makes a diagnosis of ulcerative colitis based on the following findings: The patient is a young woman with recent onset of inflammatory diarrhea
symptoms. Her physical examination is notable for pallor, dry oral mucosa, abdominal tenderness, and heme-positive stool. Laboratory data show leukocytosis, hypoalbuminemia, and fecal leukocytes. Endoscopic evaluation shows a left-sided colitis and biopsies reveal acute and chronic inflammation. The patient’s disease is judged to be moderately severe.

• What is the approach to therapy in inflammatory bowel disease?

Therapy for ulcerative colitis or Crohn’s disease occurs in 2 steps. The first step is to induce remission and resolve all inflammatory symptoms, and the second is to maintain remission. Published literature reviews of severe ulcerative colitis suggest that approximately two thirds of patients achieve clinical remission with medical therapy; remission is maintained in up to 80% of compliant patients [14].

**Induction**

Aminosalicylates that contain 5-aminosalicylic acid (5-ASA [mesalamine]) are the first-line agents for inducing remission in ulcerative colitis for patients with mild to moderate symptoms (Table 2). Mesalamine is the active moiety that acts topically (from the lumen) to suppress the production of numerous proinflammatory mediators [15]. Aminosalicylates are available in pills, suppositories, and enemas.

The selection of an aminosalicylate agent is determined by the specific sites in the large intestine to which the mesalamine must be delivered; the dose must be optimized to achieve clinical benefits. Fortunately, these formulations have low toxicity and are generally well tolerated (Table 3). When aminosalicylates are inadequate or when symptoms of ulcerative colitis are moderate to severe, oral or topical corticosteroids must be used to induce remission. Prednisone 40 mg or 60 mg daily is the usual starting corticosteroid. Full-dose therapy is continued until symptoms abate and bowel movements normalize. The

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**Table 2. Medications Commonly Used to Treat Ulcerative Colitis**

<table>
<thead>
<tr>
<th>Class/Drug</th>
<th>Distal Colitis</th>
<th>Mild-Moderate</th>
<th>Moderate-Severe</th>
<th>Maintenance</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-ASA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enema</td>
<td>+</td>
<td>+*</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Oral</td>
<td>+</td>
<td>+</td>
<td>–</td>
<td>+</td>
</tr>
<tr>
<td>Corticosteroids</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(classic and novel)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enema, foam, suppository</td>
<td>+</td>
<td>+*</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Oral</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>–</td>
</tr>
<tr>
<td>Intravenous</td>
<td>+†</td>
<td>–</td>
<td>+</td>
<td>–</td>
</tr>
<tr>
<td>6-MP/AZA</td>
<td>+†</td>
<td>–</td>
<td>+†</td>
<td>+†</td>
</tr>
<tr>
<td>Methotrexate</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Cyclosporine</td>
<td>+†</td>
<td>–</td>
<td>+†</td>
<td>–</td>
</tr>
</tbody>
</table>

ASA = aminosalicylic acid; AZA = azathioprine; 6-MP = 6-mercaptopurine. (Adapted with permission from Sands BE. Therapy for inflammatory bowel disease. Gastroenterol 2000;118:S71.)

*For adjunctive therapy.
†Selected patients.

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**Table 3. Selected Adverse Effects of Medications Commonly Used to Treat Ulcerative Colitis**

<table>
<thead>
<tr>
<th>Agent</th>
<th>Adverse Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-ASA</td>
<td>Anorexia, dyspepsia, nausea/vomiting, hemolysis, neutropenia, agranulocytosis, follicular malabsorption, reversible male infertility, neuropathy; see also sulfa-free 5-ASAs</td>
</tr>
<tr>
<td>Sulfasalazine</td>
<td>Headache, drug fever, rash, paradoxical exacerbation of colitis, pancreatitis, hepatitis, pericarditis, pneumonitis, nephritis, secretory diarrhea (salazosulfapyridine)</td>
</tr>
<tr>
<td>Corticosteroids</td>
<td>Sleep disturbance, mood disturbance, acne, striae, hirsutism, adrenal suppression, proximal myopathy, glucose intolerance, hypertension, narrow angle glaucoma, cataracts, pseudo-tumor cerebri, infection, edema, impaired wound healing, growth retardation, osteoporosis, aseptic necrosis</td>
</tr>
<tr>
<td>Control release</td>
<td>Adrenal suppression at doses 9 mg/day in 2 divided doses and higher, but occurrence of classic corticosteroid adverse effects similar to placebo</td>
</tr>
<tr>
<td>Immunomodulators</td>
<td>Nausea, drug fever, rash, arthralgia, leukopenia; thrombocytopenia; pancreatitis; hepatitis; infection</td>
</tr>
<tr>
<td>6-MP/AZA</td>
<td>Anorexia, nausea/vomiting; bone marrow suppression; megaloblastic anemia; alopecia; abortifacient; hepatic fibrosis; interstitial pneumonitis; neuropathy</td>
</tr>
<tr>
<td>Methotrexate</td>
<td>Anorexia, nausea/vomiting; bone marrow suppression; megaloblastic anemia; alopecia; abortifacient; hepatic fibrosis; interstitial pneumonitis; neuropathy</td>
</tr>
<tr>
<td>Cyclosporine</td>
<td>Reversible or irreversible decrease in renal function; hypertension; tremor, headache, paresthesia, seizure; hypertrichosis; hepatic toxicity; infection; lymphoma; gingival hyperplasia</td>
</tr>
</tbody>
</table>

ASA = aminosalicylic acid; AZA = azathioprine; CIR = controlled ileal release; 6-MP = 6-mercaptopurine. (Adapted with permission from Sands BE. Therapy for inflammatory bowel disease. Gastroenterol 2000;118:S72.)
dose is tapered only after the patient improves to the extent that he or she is experiencing no visible blood with bowel movements and no frequency, urgency, or nocturnal bowel movements.

When oral prednisone is not effective, patients must be hospitalized and started on intravenous corticosteroids, usually methylprednisolone sodium succinate 40 mg daily. If the flare has not responded after 5 to 7 days of intravenous therapy, 2 options remain: intravenous cyclosporine or colectomy [16]. A retrospective study of 85 consecutive patients with severe ulcerative colitis, many of whom had failed therapy with oral corticosteroids, showed that those with more than 6 weeks of symptoms or severe endoscopic lesions had the highest failure rate on intravenous steroids (85%) [17]. This patient subset required colectomy or intravenous cyclosporine.

Maintenance

Once a patient is in remission, the goal of continued therapy is to prevent recurrence. The level of therapy that induced remission dictates the selection of therapy for maintenance. If, for example, 5-ASA compounds successfully controlled symptoms, then 5-ASA compounds will likely be adequate for maintenance therapy [18]. Patients with ulcerative colitis limited to the distal colon often require topical mesalamine to induce remission. Many clinicians have found that to maintain remission in these patients, the combination of oral and intermittent rectal mesalamine treatments with enemas or suppositories are necessary on a long-term basis [19]. If corticosteroids are necessary to induce remission, larger doses (up to 4.8 g daily) of mesalamine may be required to prevent relapse as steroids are tapered.

Corticosteroids can induce remission in ulcerative colitis but are not effective at preventing relapse. Once a disease is in remission, the daily dose of prednisone can be tapered on an individualized basis according to the time required to achieve a complete resolution of symptoms. In general, prednisone can be reduced weekly in 5-mg increments.

At referral centers for inflammatory bowel disease, clinical researchers have studied immunomodulator therapy with 6-mercaptopurine (6-MP) or azathioprine to maintain remission in ulcerative colitis patients who have been unable to taper steroids despite mesalamine maintenance therapy. In 1 long-term outcome study, complete remission was attained in 65% of patients taking 6-MP and partial remission was seen in 24% [20]. Complete responders who discontinued immunomodulator therapy, however, had a high relapse rate (87%).

If intravenous cyclosporine was used to induce remission, a transition to oral cyclosporine is performed at the time of hospital discharge. Over the next several months, many experts suggest further transition to 6-MP or azathioprine as long-term maintenance therapies because cyclosporine has not been an effective maintenance treatment. Long-term toxicities of cyclosporine include hypertension, renal insufficiency, headaches, gingival hyperplasia, and hyperkalemia. The antimetabolites 6-MP and azathioprine are generally better tolerated, although they are associated with a 3% to 15% incidence of pancreatitis. Monitoring of a patient’s complete blood count is required at least quarterly to avoid the risk of leukopenia [21].

Treatment and Follow-up

Therapy with oral mesalamine at a dose of 2.4 g daily is started. The patient is instructed to avoid NSAIDs. She is seen for follow-up 10 days later. At this visit, she reports that her symptoms have improved slightly but her bowel movements have not normalized. She still has 3 or more soft or sometimes liquid bowel movements daily with visible blood. The pain has resolved, and the patient has begun to eat more. The fever has resolved as well.

The dose of oral mesalamine is increased to 4.8 g daily, and a mesalamine enema is prescribed to be taken at night. After several weeks, symptoms of morning urgency and bleeding continue and the patient reports at least 6 trips to the toilet daily. She is begun on oral prednisone 40 mg daily and is continued on mesalamine 4.8 g daily.

After 3 weeks her diarrhea has completely resolved. She feels well. She reports that she has no abdominal pain and her bowel movements are formed, occur once daily, and have no apparent blood.

**How long must maintenance therapy be continued in ulcerative colitis?**

The optimum duration of medical maintenance therapy is not known. In 1 study, patients with ulcerative colitis were stratified according to their duration of remission and randomized to receive mesalamine or placebo for 1 year [22]. Mesalamine was more effective at maintaining remission in patients who had a shorter duration of remission (mesalamine 23% recurrence, placebo 49% recurrence). However, among the patients with a longer duration of remission at study entry, there was no statistical difference in the rate or relapse. This research suggests that patients with mild ulcerative colitis may not need indefinite maintenance therapy once they have been in remission for several years. In general, however, patients with inflammatory bowel disease must be compliant with maintenance medical therapy in order to decrease the likelihood of recurrent flares.
• How is alternative or complementary medicine changing the management of ulcerative colitis?

Complementary Medicine Use
Use of complementary medicine therapies has become increasingly common among patients with inflammatory bowel disease. Vitamins and herbal therapies appear to be the most popular choices. Because some remedies may interfere with conventional medicines, it has become important for clinicians to question patients about self-medication. In a 1998 survey of 134 patients with Crohn’s disease or ulcerative colitis, 51% of patients had used an alternative therapy within the prior 2 years [23]. Patients were motivated by dissatisfaction with side effects and ineffectiveness of conventional treatments. Patients who were ill for more than 10 years and those with a history of hospitalization for inflammatory bowel disease were most likely to have used complementary medicine. A large percentage of patients surveyed did not report the complementary medicine use to their doctor, mostly because they perceived their physicians to be ignorant or intolerant of alternative therapies.

Moser and colleagues reported similar conclusions from a study that correlated alternative medicine use with the results from a questionnaire on patients’ concerns about inflammatory bowel disease [24]. Approximately 1 in 3 patients with inflammatory bowel disease used an unconventional therapy. Most used the alternative treatments in conjunction with conventional medicines prescribed by their doctors. Users of complementary medicine tended to have longer disease duration and were more preoccupied by the prospect of surgery and feeling out of control.

At this time, when most herbal supplements have not been rigorously studied and their efficacy in inflammatory bowel disease is unknown, clinicians must be aware of these trends in patients with chronic illness such as ulcerative colitis. These studies reinforce the importance of taking a thorough medication history and allowing inflammatory bowel disease patients to actively participate in medical decision making.

• What surgical procedures are used in ulcerative colitis, and when is surgery indicated?

Surgery
Surgery is curative in ulcerative colitis and has been shown to lead to durable improvements in quality of life [25]. Several surgical options exist. The 2 most common choices today are proctocolectomy with ileostomy and total colectomony with ileoanal anastomosis. In previous years, total colectomy with ileorectal anastomosis has been performed as well as proctocolectomy with the Kock pouch—a continent ileostomy.

Elective surgery in ulcerative colitis can be done laparoscopically. The advantages of the laparoscopic approach are a shorter postoperative ileus and less narcotic requirement. Patients can generally be fed sooner, and shorter hospital stays have been reported [26].

Colectomy is indicated in ulcerative colitis that is refractory to medical therapies or when it is fulminant and toxic megacolon or perforation is suspected. Approximately 25% of patients with severe colitis will fail to improve from therapy with intravenous corticosteroids and will require urgent colectomy [27]. Clinical signs that suggest failing medical therapy include cessation of bowel movements, abdominal distension, progressive leukocytosis, and progressive hypalbuminemia. Surgery should be offered to all patients with severe symptoms who do not improve within 1 week of treatment with intravenous corticosteroids. A final indication for surgery is the development of dysplasia or cancer.

2 Years Later
At a follow-up visit 2 years after diagnosis of ulcerative colitis, the patient reports having mild flares of her symptoms that she manages with short-term treatment with nightly mesalamine enemas. In general, the ulcerative colitis has remained well controlled with oral mesalamine. She has a new complaint of hip pain and knee pain that correlates with her flares of colitis. In addition, her aunt was recently diagnosed with colon cancer and she is concerned about her own risk.

• What are the complications of ulcerative colitis?

Complications of Ulcerative Colitis
There are several extra-intestinal manifestations of ulcerative colitis. Inflammatory changes can be seen in the oral mucosa, where aphthae are seen in approximately 10% of patients experiencing an acute flare. The skin may also be involved in ulcerative colitis. Erythema nodosum may complicate ulcerative colitis or herald flare-up. Pyoderma gangrenosum is an ulcerating skin condition that affects the trunk and limbs of only 1% to 2% of these patients. The skin lesions parallel the severity of colonic inflammation and only rarely persist in the setting of quiescent colitis or after colectomy. Episcleritis or anterior uveitis is seen in 5% to 8% of patients. Scleral inflammation is most commonly associated with flare-ups of colitis, whereas uveitis (iritis) is associated with HLA B-27 and runs a course independent from colitis activity.
Physician’s Recommendations

The physician reassures the patient that the joint pains she is feeling are related to her intestinal inflammation and should improve with treatment of the colitis. He also explains that her risk of colorectal cancer will ultimately be even higher than that of other patients with ulcerative colitis because she has a first-degree relative with colorectal cancer. The physician recommends full colonoscopy after 10 years of ulcerative colitis, or sooner if the patient has new symptoms or a clinical change such as weight loss.

Conclusion

Ulcerative colitis is a chronic inflammatory condition of the colon that does not shorten a patient’s life span but can cause significant morbidity and lead to considerable expense. Before establishing the diagnosis of ulcerative colitis, a physician must carefully consider other inflammatory intestinal processes that resemble the disease. The goals of therapy are to suppress all inflammatory symptoms, both intestinal and extra-intestinal, then to choose the least toxic but effective maintenance treatment to prevent flares. Over the long term, screening for neoplastic and cholestatic complications as well as complications of medical therapy take on greater importance.

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References