



## Microscopic Colitis (Lymphocytic Colitis and Collagenous Colitis)

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### WHAT IS COLITIS?

Colitis means inflammation of the colon. The colon, also known as the large intestine or large bowel, constitutes the last part of the digestive tract. The colon is a long, muscular tube that receives undigested food from the small intestine. It removes water from the undigested food, stores it and then eliminates it from the body through bowel movements. The rectum is the last part of the colon adjacent to the anus. The common symptoms of colitis include:

- Abdominal pain
- Diarrhea
- Sometimes, rectal bleeding

There are many different types of colitis with different causes. Some examples of colitis include:

- Infectious colitis caused by bacteria (such as shigella, Campylobacter, E.coli, and C.difficile)
- Infectious colitis caused by virus (such as CMV)
- Radiation colitis (such as following treatment with radiation for treating prostate cancer)
- Ischemic colitis (such as blockage of an artery in the colon by a blood clot. If the blood clot interrupts the flow of blood to a segment of the colon, the result is inflammation of that segment and, sometimes, even death—gangrene—of the segment)
- Crohn's disease and ulcerative colitis (two related conditions that are caused by abnormalities of the body's immune system in which the body is inappropriately making antibodies and chemicals that attack the colon)

Infectious, radiation, ischemic, ulcerative, and Crohn's colitis all have visible abnormalities in the inner lining of the colon. These abnormalities include edema (swelling of the lining), redness, bleeding of the lining with gentle rubbing (friability), and ulcers. These abnormalities can be seen during either colonoscopy (examination of the entire colon using a long flexible viewing

tube) or flexible sigmoidoscopy (examination of the rectum and the sigmoid colon; the segment of the colon closest to the rectum).

Edema and inflammation of the colon's lining interferes with the absorption of water from the undigested food, and the unabsorbed water exits the rectum as diarrhea. Pus and fluid also are secreted into the colon and add to the diarrhea. The redness, bleeding of the lining with gentle rubbing (friability), and ulcerations in the lining of the colon contribute to rectal bleeding.

### WHAT DISEASES ARE NOT COLITIS?

Patients with irritable bowel syndrome (IBS) do not have colitis, even though they are sometimes referred to as having "spastic colitis," but they frequently have symptoms that mimic colitis such as diarrhea, abdominal pain and mucous in stool. Nevertheless, there is no inflammation of the colon (not even microscopic colitis) in patients with IBS. The cause of symptoms in IBS is not clearly known; it may be caused by either abnormal motility (abnormal contractions) of the intestinal muscles or abnormally sensitive nerves in the intestines (visceral hypersensitivity).

### WHAT IS MICROSCOPIC COLITIS?

Microscopic colitis refers to inflammation of the colon that is only visible when the colon's lining is examined under a microscope. The appearance of the inner colon lining in microscopic colitis is normal by visual inspection during colonoscopy or flexible sigmoidoscopy. The diagnosis of microscopic colitis is made when a doctor, while performing colonoscopy or flexible sigmoidoscopy, takes biopsies (small samples of tissue) of the normal-appearing lining, and then examines the biopsies under a microscope.

There are two types of microscopic colitis: lymphocytic colitis and collagenous colitis. In lymphocytic colitis, there is an accumulation of lymphocytes (a type of white blood cell)

within the lining of the colon. In collagenous colitis, there is an additional layer of collagen (scar tissue) just below the lining. Some experts believe that lymphocytic colitis and collagenous colitis represent different stages of the same disease.

The inflammation and the collagen probably interfere with absorption of water from the colon, and cause the diarrhea.

### **WHAT ARE THE SYMPTOMS OF MICROSCOPIC COLITIS?**

The primary symptom of microscopic colitis is chronic, watery diarrhea. Patients with microscopic colitis can have diarrhea for months or years before the diagnosis is made. This chronic diarrhea of microscopic colitis is different from the acute diarrhea of infectious colitis, which typically lasts only days to weeks. Some patients with microscopic colitis also may report mild abdominal cramps and pain. Blood in the stool is unusual.

### **HOW COMMON IS MICROSCOPIC COLITIS AND WHO IS AT RISK?**

The prevalence of microscopic colitis in the U.S. is not clearly known. It is estimated that 10-20% of patients with chronic diarrhea may have microscopic colitis. It is this author's experience, that the condition is becoming more common in recent years. It is not clear, however, whether there is an actual increase in the frequency of microscopic colitis or whether doctors are just better at diagnosing it.

Microscopic colitis most commonly occurs in middle aged to elderly patients and is more common among women than men.

### **WHAT CAUSES MICROSCOPIC COLITIS?**

The cause(s) of microscopic colitis is unknown. Some doctors suspect that microscopic colitis is an autoimmune disorder similar to the autoimmune disorders that cause chronic ulcerative colitis and Crohn's disease.

One study has implicated long term (longer than 6 months) use of non-steroidal anti-inflammatory drugs (NSAIDs) as a cause of microscopic colitis. Some patients' diarrhea improves after stopping the NSAIDs.

### **HOW IS MICROSCOPIC COLITIS DIAGNOSED?**

The diagnosis of microscopic colitis is made by performing biopsies from different regions of the colon during colonoscopy or sigmoidoscopy.

The abnormalities of the colon's lining in microscopic colitis occur in a patchy distribution (areas of normal lining may exist adjacent to areas of abnormal lining). For this reason, multiple biopsies should be taken from several different regions of the colon in order to accurately make a diagnosis. The patchy nature of microscopic colitis also is the reason why flexible sigmoidoscopy often is inadequate in diagnosing the condition because the abnormalities of microscopic colitis may be absent from the sigmoid colon (the colonic segment that is closest to the rectum and is within the reach of a sigmoidoscope) in 30-40% of the patients with microscopic colitis. Thus, biopsies of other regions of the colon accessible only with colonoscopy may be necessary for diagnosing microscopic colitis.

### **WHAT IS THE PROGNOSIS OF MICROSCOPIC COLITIS?**

The long term prognosis (course) of microscopic colitis is not clear. In approximately two-thirds of the patients with microscopic colitis, the diarrhea resolves spontaneously after several years. The remaining one-third of the patients experience persistent or intermittent diarrhea for many years (possibly indefinitely).

### **WHAT IS THE TREATMENT FOR MICROSCOPIC COLITIS?**

The treatment of microscopic colitis has not been standardized because there have not been adequate large scale, prospective, placebo controlled treatment trials. The following strategies are safe and may relieve diarrhea in some patients:

- Avoid NSAIDs
- Trial of lactose elimination (just to eliminate the possibility that intolerance to lactose in milk is aggravating the diarrhea)
- Anti-diarrhea agents such as Imodium or Lomotil
- Bismuth subsalicylate such as Pepto-Bismol
- 5-ASA (mesalamine) compounds such as Asacol, Pentasa, or Colazal



Two recent controlled trials showed that budesonide (Entocort, a poorly absorbed steroid) is effective in controlling diarrhea in more than 75% of the patients with collagenous colitis, but the diarrhea tends to recur soon after stopping Entocort. Though data is lacking, some doctors may consider using medications that potently suppress the immune system such as azathioprine and 6-mercaptopurine among patients with severe microscopic colitis that is unresponsive to other treatments.

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