

## Microscopic Colitis:

- **Collagenous Colitis**
- **Lymphocytic Colitis**

### Introduction

It is important not to confuse Microscopic Colitis (MC) with either Ulcerative Colitis (UC) or Crohn's Colitis, the two better known forms of Inflammatory Bowel Disease (IBD) which affect the colon (large bowel). In UC and Crohn's Colitis the lining of the bowel, when viewed by the naked eye, is ulcerated and sore. A typical symptom is bloody diarrhoea.

In Microscopic Colitis the appearance of the bowel lining is normal, and the diarrhoea is watery and never contains blood. It is only when samples of the bowel lining are viewed under a microscope that the inflammation can be seen; hence the name – Microscopic Colitis.

There are two main forms of Microscopic Colitis: Collagenous Colitis (CC), which was first described in 1976, and Lymphocytic Colitis (LC) a few years later. They both became known as Microscopic Colitis. MC is more common than was previously believed. It may be that the typical history of symptoms has not been recognised or investigations have been insufficient to make a diagnosis.

This information sheet looks at the differences between the two types of Microscopic Colitis: the symptoms, who gets MC and what the causes may be. It also describes how MC is diagnosed and the treatment options.

### How are Lymphocytic and Collagenous Colitis different?

There is not much difference between Lymphocytic and Collagenous Colitis and they tend to cause the same symptoms.

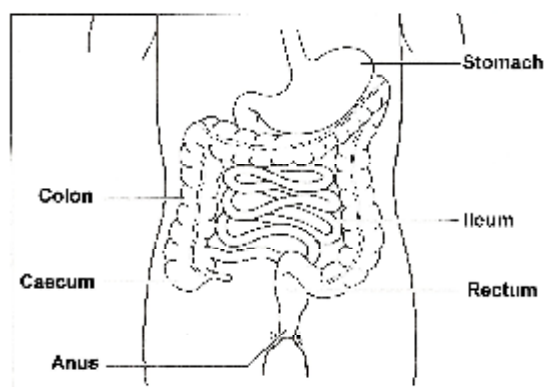
In LC there is an increased number of white blood cells, called lymphocytes, within the lining of the colon.

Lymphocytes are part of the body's defence system to fight infection and disease. In CC the lining of the colon develops a thicker than normal layer of a protein, called collagen. This thicker layer is not found in LC. However, in CC there may also be an increased number of lymphocytes.

There has been some debate about whether these two conditions are individual diseases or two stages of one disease. There have been several cases where over time, the diagnosis has changed from one to the other.

### How does Microscopic Colitis affect the working of the colon?

The colon (shown below) has two functions: first, it absorbs water from the liquid waste produced during digestion. The left over waste becomes solid faeces (stools). Secondly, it acts as a reservoir to hold the stools until they pass out of the body through the anus in a bowel movement.



Microscopic Colitis can affect the entire length of the colon, often in patches, as well as the rectum. When the colon becomes inflamed with MC it becomes less efficient at absorbing the liquid from the waste. This means you will have a larger volume of watery stools. At the same time the inflamed colon cannot hold as much waste as normal, so you will have more frequent bowel movements.

### **What are the symptoms of Microscopic Colitis?**

The main symptom of MC is chronic (ongoing), watery diarrhoea, which may begin very suddenly and occur during the day or night. The diarrhoea may be either continuous or intermittent. If your diarrhoea is severe you may become dehydrated. (See our information sheet: Dehydration.) Unlike in Ulcerative Colitis, you will not get any bleeding, as the lining of the bowel is not ulcerated.

Other common symptoms include abdominal pain or discomfort, weight loss, fatigue, nausea and fever.

### **Who gets Microscopic Colitis?**

MC mainly affects older people. Lymphocytic Colitis affects men and women in about the same numbers, but more women tend to get Collagenous Colitis. The typical age of people getting these conditions is in their 50s and 60s. However, in a UK study of 127 people with MC, 2 people in 10 were aged 40 or under. It has also been found in children, though rarely. There have been some reports of a family history of MC, but as the numbers are small, it is not yet clear whether there is a genetic predisposition.

There has been little research in the UK on MC, but European studies have found that it affects approximately 1 person in 10,000. However, a recent US study found that the numbers were significantly higher than previously reported. This may be due to increased awareness of the condition and more investigations of older people with chronic diarrhoea. Also, MC may have been mistaken for a more common condition, IBS (Irritable Bowel

Syndrome). A couple of studies have shown that about 2 people in 10 initially diagnosed with IBS were found years later to have MC.

### **What causes Microscopic Colitis?**

Like other forms of IBD it is not known what causes MC, but studies suggest that there are likely to be a number of factors.

Some scientists believe MC may result from an autoimmune response, which means that the body's immune system destroys healthy cells for no known reason. This idea is supported by reports that up to half of people with MC also have other so-called auto-immune diseases, including coeliac disease, rheumatoid arthritis, thyroid disorders and diabetes. Additionally, a recent study has found a genetic link between MC and coeliac disease.

It has also been suggested that there is a link to hormones. This theory comes from the fact that there are more women than men with CC and reports that symptoms stop with pregnancy.

In a recent review of research into MC it was found that certain drugs seem to trigger the condition. The drugs most commonly associated with MC include:

- non-steroidal anti-inflammatory drugs (NSAIDs), such as diclofenac and ibuprofen;
- aspirin;
- lansoprazole, (a proton pump inhibitor used to lower stomach acid);
- acarbose for diabetes;
- ranitidine for indigestion and heartburn;
- ticlopidine for blood conditions and
- sertraline, an anti-depressant.

However a more recent study did not find a direct association between lansoprazole or sertraline and MC. The researchers concluded that wider research into the possible causes of MC is needed. If you are taking any of these medications, it is important not to stop taking them until you have talked to your doctor.

Other ideas include a reaction to bile salts, to bacteria in the gut or to an infection, such as *Clostridium difficile*. It may be that there is not one single cause, but a combination of several that set off an inflammatory response.

### **Is there a risk of cancer?**

There is no evidence that having Microscopic Colitis increases your risk of getting colon cancer. Researchers believe you have the same risk as that of the general population.

### **How is Microscopic Colitis diagnosed?**

Microscopic Colitis can only be diagnosed by examining tissue samples taken from the lining of the colon during a colonoscopy. This is a test in which a specialist inserts a colonoscope through the anus. A colonoscope is a long flexible tube about the thickness of your little finger, with a bright light and camera at the end, which allows the specialist to look directly at the lining of the colon. The colonoscope is long enough to look at the whole colon. Sometimes the specialist will carry out a similar test, a flexible sigmoidoscopy, which uses a shorter scope. However, as this type of scope only reaches the lower part of the colon, this test may not find MC that could be higher up the colon.

During either test the specialist will remove small pieces of tissue from the lining of the colon to examine in the laboratory. These tissue samples are called biopsies. It may be necessary to take several biopsies throughout the colon, as MC tends to be patchy and may occur in different parts of the colon. A diagnosis may be missed if appropriate biopsies are not taken at colonoscopy.

### **Can Microscopic Colitis develop into Crohn's Disease or Ulcerative Colitis?**

The risk of Microscopic Colitis developing into Crohn's or UC appears to be very small indeed. Although a few cases have been reported, some researchers believe that this could be due to misdiagnosis in the first place, or that MC could be a trigger for IBD or part of the disease

process in IBD. There can be similarities between the features of each condition and thorough tests are necessary to make the right diagnosis. For further information about various tests see our booklet: Investigations for IBD.

### **How is Microscopic Colitis treated?**

The treatment of MC will depend upon the severity of symptoms. While some people find symptoms stop without treatment, most people have ongoing or occasional diarrhoea. There is no cure at present for the condition, but treatment can relieve symptoms.

The first aim of treatment is to eliminate any other factors that could be contributing to the diarrhoea. It is important therefore that you have investigations for other conditions that have similar symptoms, which include coeliac disease, diabetes and thyroid disease. If you are taking any of the drugs mentioned previously as a possible trigger of MC, such as NSAIDs, aspirin or lansoprazole, then it would be best to talk to your doctor about stopping, decreasing, or changing your medication.

If you have mild symptoms, anti-diarrhoeal drugs such as loperamide (Imodium) may be effective, although high doses may be needed. In one study, bismuth subsalicylate (Pepto Bismol) has also been found to be effective and well-tolerated. However, the numbers of people in this study were very small.

For more severe symptoms, anti-inflammatory drugs are used, which include mesalazine, a 5-ASA drug, and corticosteroids. Mesalazine has been shown to improve symptoms, but the research is limited. Budesonide, a corticosteroid, currently appears to be the most effective treatment for MC, though symptoms often return after stopping medication. In this case, further courses of budesonide or immunosuppressants, such as azathioprine, may be tried.

Other drugs that have been used include cholestyramine, antibiotics (such as

metronidazole), methotrexate and ciclosporin.

You can find more details on drugs in our booklet: *Drugs Used in IBD*.

Very rarely surgery may be an option, but it is hardly ever required nowadays with the use of more effective medication. One option is a temporary ileostomy where the contents of the intestines are diverted to give the affected colon a chance to heal. To do this, the ileum (the lower end of the small intestine) is brought out through the wall of the abdomen as a stoma (or ileostomy) to empty into a bag. Once the colon has sufficiently recovered, the stoma will be closed. If, very rarely, permanent surgery is recommended the operation may be for a permanent ileostomy or an internal pouch. You can find details of these operations in our publication: *Surgery for Ulcerative Colitis*.

### **Do I need to change my diet?**

There is limited evidence on foods that may affect people with Microscopic Colitis. Generally, the most important thing is to eat a nutritious and balanced diet to maintain your weight and strength, and to take sufficient fluids to stop you getting dehydrated. You may find, however, that certain foods affect your symptoms. Some studies suggest that cutting down on caffeine, alcohol, dairy products, wheat and artificial sweeteners, such as sorbitol, may improve symptoms. Avoiding milk products may help if you are lactose intolerant (an inability to digest and absorb the sugar in milk), which one study found more common in people with MC. However, it is important to get advice from your doctor or a qualified dietitian before making any changes to your diet. For more information on healthy eating see our booklet: *Food and IBD*.

### **What about alternative and complementary approaches?**

Some people try alternative or complementary treatments to help improve their symptoms. You can find some suggestions in our information sheet: *Managing Diarrhoea*, but it is best

to talk to your doctor before trying any alternative treatment.

There have been only two studies of alternative products for MC and both were for CC. One was for the herbal preparation, *Boswellia serrata* extract, and the other for probiotics. Neither study showed any real benefit. However, the numbers of people studied were very small and some researchers believe that larger trials may show a difference.

### **Will I recover?**

The outlook for people with Microscopic Colitis is generally very good. It tends to come and go with time and seldom becomes a long term or disabling problem. Although the research is limited, one study of 81 people with MC over about 3 years found that more than two thirds of them remained free of symptoms after treatment.

### **Further help**

**Crohn's and Colitis UK Information line:**

**0845 130 2233, open Monday to Friday 10am – 1pm** (excluding Bank Holidays). Information staff will help with any IBD related queries. There is an answerphone service outside these hours.

**NACC-in-Contact Support Line:**

**0845 130 3344, open Monday to Friday 1pm – 3.30pm and 6.30pm-9pm** (excluding Bank Holidays). This is a supportive listening service staffed by trained volunteers with personal experience of IBD.

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Microscopic Colitis: Collagenous Colitis  
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Last review August 2010

Next review 2012

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***We hope that you have found the information helpful and relevant. We welcome any comments from readers, or suggestions for improvements.***

***References or details of the research on which this publication is based can be obtained from Crohn's and Colitis UK at the address below. Please send your comments to Helen Terry at Crohn's and Colitis UK, 4 Beaumont House, Sutton Road, St Albans, Herts AL1 5HH, or email [h.terry@crohnsandcolitis.org.uk](mailto:h.terry@crohnsandcolitis.org.uk)***

**Crohn's and Colitis UK is the working name for the National Association for Colitis and Crohn's Disease (NACC). NACC is a voluntary Association, established in 1979, which has 30,000 members and 70 Groups throughout the United Kingdom.**

**Membership of the Association costs £12 a year. New members who are on lower incomes due to their health or employment circumstances may join at a lower rate. Additional donations to help our work are always welcomed.**