gihealth.com.au reception@gihealth.com.au 03 9709 2777

Endoscopy Gastrointestinal Medicine Nutrition

The Centre for GI Health

ULCERATIVE COLITIS

Ulcerative colitis is a chronic inflammatory condition of the large intestine (colon) of uncertain cause affecting about 1 in 300 or over 40 000 Australians.

Understanding ulcerative colitis may help you navigate the uncertainty that comes with a new diagnosis.

CAUSES & RISK FACTORS

Ulcerative colitis (UC), develops when the immune system makes a mistake in directing an inflammatory attack on one's own large intestinal lining.

Usually, the immune system attacks invaders such as microbes like the common cold upon entering the body, however when UC occurs, the immune system mistakenly recognises the colon lining as the intruder. White blood cells that usually protect the body from invaders attack the colon lining instead leading to the development of inflammation and ulcers.

It is still not clear why people develop the condition. One's genes may play a role and the disease sometimes runs in families.

Factors that may affect the risk of developing ulcerative colitis include:

- Age (It's most likely between 15 and 30 years old or older than 60 years of age)
- Ethnicity (the risk is highest in people of Ashkenazi Jewish descent)
- Family history (risk could be as high as 30% when a first-degree relative has the condition)
- Recent cessation of smoking
- Food and stress don't cause UC but may trigger a flare of symptoms
- Infections (first presentations and relapses are more common after episodes of bacterial gastroenteritis)
- Men are affected slightly more commonly than women

WHAT IS IT?

Ulcerative colitis (UC) is an inflammatory disease of the colon associated with periods of diarrhoea and abdominal discomfort, chronic irritation, inflammation, and ulcers that form in the lining of the large intestine (colon).

Although many management options are available there is no cure, and patients usually experience intermittent symptoms for much of their life after diagnosis. With careful selection of appropriate treatments doctors can usually help in keeping a handle on the disease and providing a healthy quality of life.

TYPES

The pattern of ulcerative colitis presenting usually depends on the location and extent of inflammation:

Ulcerative proctitis

Ulcerative proctitis is usually the mildest form. Affecting the rectum only, the part of your colon closest to your anus.

Rectal bleeding may be the only sign of the disease but passage of mucus and a sense of urgency to empty the bowel associated with a sense that the rectum has not emptied completely may be reported (tenesmus).

Left-sided colitis

Left-sided colitis generally causes cramps on the left side of the abdomen. Bloody diarrhea May be reported as may unintentional weight loss.

Inflammation is noted extending from the rectum up through the left side of the colon.

ULCERATIVE COLITIS VS. CHRON'S DISEASE VS. IRRITABLE BOWEL

Other gastrointestinal diseases may have similar symptoms.

Ulcerative colitis affects only the lining of the large intestine, a similar condition called Crohn's disease also causes gastrointestinal inflammation, but inflammation may involve the digestive tract from the mouth to the anus.

Irritable bowel syndrome has some of the same symptoms as Ulcerative colitis but doesn't cause inflammation or ulcers and is not associated with rectal bleeding.

Proctosigmoiditis

Proctosigmoiditis involves the rectum and the lower end of the colon (you may hear the doctor call it the sigmoid colon).

Patients are likely to report bloody diarrhea, belly cramps, and pain. There may be an urge to evacuate the bowel often unsatisfactorily (this sensation is called tenesmus.)

Pancolitis

Pancolitis affects the entire colon. It may cause severe bouts of bloody diarrhea, belly cramps, pain, fatigue, and major weight loss.

Acute severe ulcerative colitis is rare. It typically affects the entire colon and causes severe pain, heavy diarrhea, bleeding, and fever and will require hospital admission.

SYMPTOMS

The main symptom of ulcerative colitis is urgent and often bloody diarrhea. There might also be some pus or mucus discharge in the stools and diarrhoea may be nocturnal also.

Other symptoms may include:

- Cramping belly pain
- Sudden urges to toilet
- Not feeling hungry
- Weight loss
- Feeling tired
- Fever
- Dehydration
- Joint pain or soreness
- Eye pain
- Anaemia
- Skin sores
- Sensation of incomplete emptying of the colon after use (called tenesmus)

Symptoms may flare and spontaneously settle and a remission from active symptoms may last for weeks or even years.

DIAGNOSIS

Your doctor will use several tests to aid in the diagnosis of ulcerative colitis and to exclude other similar conditions as above. The initial diagnostic workup consists of a complete history and physical examination, assessment of signs and symptoms, laboratory tests and endoscopy.

Specific testing may include the following:

- A complete blood count done to check for anaemia and other alteration in blood cell counts
- Electrolyte studies and kidney function tests done, as chronic diarrhea may be associated with low potassium and magnesium levels and kidney injury.
- Iron and Vitamin B12 assay (B12 absorption msg be affected in Crohn's disease involving the ileum
- Liver function tests performed to screen for associated liver and bile duct inflammation and protein levels
- Imaging such as x-ray, CT MRI or ultrasound scan
- Stool analysis for blood and pus cells as well as for bacterial culture, parasite analysis and Clostroides difficile stool assay to rule out infectious colitis is very important
- Stool analysis for faecal calprotectin, which is elevated in inflammatory conditions affecting the colon, and is useful in distinguishing irritable bowel syndrome (noninflammatory) from a flare in inflammatory bowel disease. Faecal calprotectin is 88% sensitive and 79% specific for the diagnosis of inflammatory colitis. If the faecal calprotectin is low, the likelihood of inflammatory bowel disease is less than 1 percent. Lactoferrin is an additional nonspecific marker of intestinal inflammation.
- Inflammatory markers, such as erythrocyte sedimentation rate or C- reactive protein
- Colonic and Ileal endoscopy to evaluate the intestinal inflammation directly and provide tissue samples called biopsies for specific microscopic examination.

TREATMENT

Management of Ulcerative colitis may be quite complex including a choice of several different types of medications including:

5 Aminosalicylic agents (more effective in ulcerative colitis than Crohn's)-these drugs reduce colonic inflammation and help control symptoms. Patients may be prescribed pills to swallow or an enema or suppository to put in the rectum.

Steroids -If aminosalicylates don't work or patients' symptoms are severe, a treating doctor may prescribe these anti-inflammatory drugs for a short time.

Immunomodulators -these helps reduce the immune system's attack on the colon. These medications may take some time to take effect. Patients may not notice any changes in symptom control for up to 3 months upon their commencement.

Biologic therapies -these are made from proteins in living cells instead of chemicals. They're for people with moderate to severe ulcerative colitis.

Janus kinase inhibitors (JAK inhibitors). These are oral medicines that can work quickly to get and maintain a remission in ulcerative

Sphingosine 1-phosphate (S1P) receptor modulators. These are oral medications for patients with moderately to severely active UC.

Dietary review (adopting a low FODMAP diet)

Mindfulness and meditation

Surgery. If medical treatments have not been effective in controlling disease, surgery to remove the colon (colectomy) or colon and rectum (proctocolectomy) may be required. At proctocolectomy the surgeon may discuss making a small pouch out of the small intestine (a man made rectum) which is attached to the anus. This is called an ileal pouch-anal anastomosis (IPAA) and allows the body to expel waste normally, avoiding the need to wear a colostomy or ileostomy bag to collect stool.

The medications listed need careful and thorough discussion with your doctor as a variety of important side effects are described with each agent.

COMPLICATIONS

Complications of ulcerative colitis may include:

- Bleeding. This can lead to anaemia.
- Osteoporosis. Where one's bones become weak after the use of large quantities of corticosteroids.
- Dehydration requiring intravenous fluid support
- Extra intestinal inflammation that may affect joints, skin, or eyes.
- Fulminant colitis that may result in colon rupture or infection.
- Megacolon. Fulminant colitis can cause the large intestine to swell or burst. This dangerous complication may require urgent surgery.
- Liver disease. Both the bile ducts or the liver sometimes become inflamed in association with ulcerative colitis. Specific therapies are required in such instances.
- Colon cancer. Ulcerative colitis is associated with a higher risk of developing colon cancer, especially if the entire large intestine is affected or if ulcerative colitis has been present over many years.

PROGNOSIS

For most patients' ulcerative colitis is a chronic, or long-term, condition characterised by flares and periods where no or few symptoms are noted (remissions).

Modern medications have brought significant improvement to patient management.

A small group of patients with ulcerative colitis- less than 10% have more complicated and severe disease that could require in hospital management and surgical intervention.