

CROHN'S DISEASE AND ULCERATIVE COLITIS

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Key concepts

- Crohn's disease and ulcerative colitis are the two most common causes of chronic inflammatory bowel disease
- Initial presentation of the two conditions may be similar. The GPs role is to investigate appropriately, and then refer to secondary care for further diagnostic investigations if inflammatory bowel disease is suspected
- A definitive diagnosis is made histologically and treatment is usually initiated by a specialist
- The GPs ongoing role is in the management of relapse and monitoring for complications and adverse effects of medication

Further Reading:

Rowe WA. Inflammatory Bowel Disease 2008. Available at: www.emedicine.com/med/topic/169.htm
A comprehensive web based review.

Crohn's disease and ulcerative colitis are chronic inflammatory bowel diseases (IBD).

Although there are significant differences in the gastrointestinal characteristics of the two conditions, (Table 1) there are many similarities in the presentation, ongoing symptoms and management. A definitive diagnosis is made histologically and this will refine management strategies. The long term prognosis varies for each condition.

The incidence and prevalence of ulcerative colitis is approximately twice that of Crohn's disease.

Although the cause is unknown, both diseases are believed to be triggered by environmental factors in genetically susceptible individuals. Possible factors include gut flora, food constituents and infections.

When to suspect

Both Crohn's disease and ulcerative colitis have a peak incidence between 20 and 40 years of age, although the conditions can affect people of any age. Males and females are equally affected. 10–20% of people with IBD have one or more other family members affected with IBD.

Features of IBD include:

Diarrhoea. Most people present with diarrhoea containing blood or mucous (the stool may be solid in ulcerative colitis if there is rectal disease only).

Other bowel symptoms. These may include abdominal pain, faecal urgency or incontinence, tenesmus, and mouth ulcers. Less frequently there may be symptoms of bowel stricture or obstruction, fistulae and abscesses (often perianal). Perforation of the bowel and toxic megacolon are rare but life-threatening complications.

Non bowel manifestations. There is often associated tiredness or malaise, fever and weight loss. Children may present with failure to thrive.

IBD is associated with the following conditions:

- Joint disease – arthritis, sacroiliitis, ankylosing spondylitis
- Eye disease – conjunctivitis, episcleritis, uveitis
- Skin disease - erythema nodosum, pyoderma gangrenosum
- Liver disease – autoimmune hepatitis, gallstones, sclerosing cholangitis

Table 1: Gastrointestinal characteristics of ulcerative colitis and Crohn's disease

	Ulcerative colitis	Crohn's disease
Distribution within the gastrointestinal tract	Limited to colorectal mucosa	Any part of the GI tract, from mouth to anus, with normal bowel in between affected areas (skip lesions)
Depth of inflammation	Mucosal (affects inner lining of the bowel)	Transmural (affects all layers of the bowel)
Rectal involvement	95% of cases	50% of cases

- Urinary complications – stones, ureteric obstruction and fistulae
- Other – anaemia (both iron deficiency and anaemia of chronic disease), thromboembolism, osteoporosis, amyloidosis

Differential diagnoses include:

- Infectious diarrhoea
- Diverticulitis
- Coeliac disease
- Irritable bowel syndrome
- Colon cancer

Investigations and referral

The GP's role is to perform a physical examination, order appropriate tests, and then refer to secondary care for further diagnostic investigations if IBD is suspected.

Physical examination is required to identify features mentioned above, such as pallor suggestive of anaemia, mouth ulcers, abdominal tenderness or anal fistula.

Appropriate investigations may include:

- CBC – this may show a microcytic anaemia and/or signs of infection.
- CRP – will often be raised in active IBD.
- Electrolytes – can be important especially if diarrhoea is prominent.
- LFTs – liver and bile duct abnormalities may be seen in some patients with IBD.
- Stool culture – to help exclude an infectious cause of diarrhoea (including *C. difficile*).
- IgA TTG – coeliac disease is a differential diagnosis

Urgent referral

Complications of IBD may include infection, malabsorption, strictures, obstruction, abscesses, fistulae, bleeding, perforation, and toxic megacolon.

Consider acute admission to hospital if the patient has any of the following symptoms:

- Severe abdominal pain, especially if associated with tenderness
- Severe diarrhoea (greater than eight times a day), with or without bleeding
- Dramatic weight loss
- Fever or severe systemic illness

The management of IBD

A management plan for IBD will often include a combination of medical and surgical treatments which will be overseen by hospital specialists. However these are chronic conditions and primary care clinicians will be involved in:

- Initial management of relapse
- Recognising complications
- Providing ongoing medication and monitoring for adverse effects
- Providing education and support

Medical management

There are two main goals of medical therapy: to bring active disease into remission and to keep the disease in remission.

Medical management for both conditions usually follows a step-wise approach although it is important to note that often combinations of medications are required, particularly when trying to bring active disease into remission.

Aminosalicylates

Patients receiving aminosalicylates are at risk of blood dyscrasias and should be advised to report any unexplained bleeding, bruising, purpura, sore throat, fever or malaise that occurs during treatment.

There are several different aminosalicylates available (sulphasalazine, mesalazine, olsalazine) with different adverse effects and monitoring requirements. GPs are advised to refer to Medsafe data sheets for further information. This will also be addressed in a future article.

Corticosteroids

The long term risks of steroids are well known – osteoporosis, thinning of the skin, hypertension, diabetes, weight gain and fluid retention. These should be discussed with your patient and attention paid to reduction of risks.

When corticosteroids are used to induce remission, review frequently and reduce the dose over eight weeks as rapid withdrawal can increase the risk of relapse. Corticosteroids are not indicated for maintenance treatment in IBD.

Immunosuppressives

Patients receiving treatment with immunosuppressives are at risk of blood dyscrasias or suppression of bone marrow production e.g. leucopenia, thrombocytopenia. There are several different immunosuppressives used (azathioprine, methotrexate, cyclosporin, mercaptopurine) with different adverse effects and monitoring requirements. GPs are advised to refer to Medsafe data sheets for further information. This will also be addressed in a future article.

Anti TNF

There is a range of drugs directed against tumour necrosis factor (TNF), a key component of the inflammatory pathway. These drugs have a significant adverse effect profile. Most importantly, as a result of the generalised effect on the immune system, infection risk is increased. There are also reports of increased risk of lymphoma but this is difficult to ascertain as Crohn's disease is also associated with an increased risk of lymphoma.

Surgical management

For ulcerative colitis there are three main indications for surgery:

- Lack of response or intolerance to medications
- Acute complications e.g. toxic megacolon or haemorrhage
- Precancerous or cancerous changes in the colon, increased risk in people with a seven to ten year history of active disease.¹

Surveillance colonoscopy to detect cancer may be performed after ulcerative colitis has been present for eight years.² In New Zealand this is repeated every two to three years.

Up to 40% of patients with ulcerative colitis will eventually require surgery. After proctocolectomy (removal of large intestine and rectum) an ileostomy is fashioned. For the majority of patients, three to six months later the ileostomy is made into a pouch, to remove the need to have a permanent stoma. However, the pouch still has the potential to become inflamed, known as "pouchitis".

For Crohn's disease the indications for surgery are:

- Lack of response or intolerance to medications
- Complications such as fistulae, abscesses, perforation, excessive bleeding or stricture leading to obstruction.

Up to 70% of patients with Crohn's disease require surgery at some point in the disease.

Other aspects of management

As in any chronic illness, patient education and support are important. GPs have an important role in counselling the patient about the implications of the condition. Patients can be provided with written information and directed to patient support groups.

Smoking cessation has been shown to be effective in reducing the number and severity of flares.³

There is conflicting evidence regarding the role of diet in both ulcerative colitis and Crohn's disease. Nutritional deficiencies and weight loss are common and are multifactorial in origin. Patients should be weighed on a regular basis.

Post surgical patients and those with ongoing inflammation require an annual check of B12.

Prognosis

For ulcerative colitis there is usually a relapsing-remitting course. On average there is a 50% chance of a flare in any year but the rate of flares is very variable. Up to 10% of people with ulcerative colitis may remain in remission for as long as 25 years and, less commonly, some will experience almost constant flares. One year after diagnosis, 90% of patients are able to work.

For Crohn's disease, there is also a relapsing-remitting course but it is more variable and less favourable than for ulcerative colitis. Over a four year period approximately one-quarter of people with Crohn's disease will remain in remission, one-quarter will have frequent flares and one-half have a course fluctuating between periods of remissions and periods of flares. One year after diagnosis, 75% of patients are able to work.

References:

1. Eaden J, Abrams K, Mayberry J. The risk of colorectal cancer in ulcerative colitis: a meta-analysis. *Gut* 2001;48: 526-35.
2. Winawer S, Fletcher R, Miller L et al. Colorectal cancer screening: clinical guidelines and rationale. *Gastroenterology* 1997; 112: 594-642.
3. Carter MJ, Lobo AJ, Travis SPL. Guidelines for the management of inflammatory bowel disease in adults. *Gut* 2004;53:v1-v16.