ISSUE 5

The Bottom Line

Vaughan Endoscopy Clinic (VEC) is a **state of the art** out-of-hospital endoscopy clinic providing **Screening colonoscopy and endoscopy** for the work up of mild gastrointestinal disorders. It is staffed by gastroenterologists**.**

In addition to the endoscopic services, they will provide all the necessary **GI follow-up** and make all the appropriate referrals required due to findings at the endoscopy.

The Medical Director has been an active participant at the CPSO in the development of **standards for out-of-hospital clinics**, all of which VEC adheres to.

Gastroenterologists:
Dr. William Appell
Dr. David Ford
Dr. Michael Gould
Dr. Susan Greenbloom
Dr. David Kreaden
Dr. Eric Leong
Dr. Michael Ostro
Dr. Ted Ptak
Dr. Jonathon Springer
Dr. Rajiv Sethi
Dr. Stephen Sinclair

In addition to high quality and convenient access to endoscopy, the Doctors at VEC will provide you with supplemental practical GI advice through this periodic newsletter. This article on IBD is written by Dr. Michael Ostro (a gastroenterologist from Credit Valley Hospital).

Inflammatory Bowel Disease

Although there are several conditions that are associated with inflammation in the bowel, the term Inflammatory Bowel Disease (IBD) is typically used to include two conditions, Crohn's disease and ulcerative colitis. There are many similarities between these two diseases, but there are several differences that clearly differentiate the two. These are listed in Table 1 on the next page.

Epidemiology of Crohn's Disease (CD) and Ulcerative colitis (UC)

There are about 10,000 new cases of IBD diagnosed each year in Canada. The incidence (per 100,000) is 1-6 for CD and 2-10 for UC. The prevalence (per 100,000) is 10-100 for CD and 35-100 for UC. Both diseases have a slight female predominance and are more common in Caucasians.

Etiology of IBD

The etiology of IBD is not known. An infectious etiology has been postulated, but an infecting agent has never been demonstrated with any consistency. There is most likely an immunological component, probably T-cell mediated. Some of the therapies currently used for IBD involve suppression of the immune system.

Although there is no hereditary pattern of occurrence of IBD, there is an obvious familial component. A patient with IBD has a 5% chance of having a blood relative with IBD, either ulcerative colitis or Crohn's disease.

Age of Onset and Severity

About 10% of patients with IBD will present before age 16. There is a bimodal pattern in the age of onset of IBD, with the first and larger peak occurring in the twenties and thirties, and a second peak in the fifties and the sixties.

An onset of IBD in childhood is associated with a higher incidence of increased severity of disease and increased incidence of complications, including requirement for surgery. As well, IBD in childhood is associated with delayed growth and development. There several potential causes. The most common cause is inadequate dietary intake, due to anorexia or dietary restrictions that patients may use to diminish abdominal pain and diarrhea. This is further compounded by increased nutritional requirements that occur as a result of the inflammatory process and fever when it is present.

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4610 Highway 7
Vaughan, ON L4L 4Y7
905 856 2626
www.vaughanendoscopy.com

There can be decreased absorption of nutrients especially in CD due to decreased absorptive capacity of inflamed bowel and decreased absorptive surface following resection. Other causes include bacterial overgrowth and altered bile salt metabolism resulting in fat malabsorption. Inflamed small bowel mucosa can also result in protein-losing enteropathy, iron deficiency due to chronic blood loss, acquired disaccharidase deficiency, and vitamin B12 deficiency. There can be profound fluid and electrolyte losses with the diarrhea. Delayed growth and development can also occur as a result of side effects of therapy, particularly steroids.

Clinical Features

The clinical features of IBD vary from patient to patient, depending predominantly on the distribution and severity of the disease. The most common symptoms are abdominal pain, diarrhea, rectal bleeding, anorexia, weight loss and fever. Patients with CD can also present with obstructive symptoms, including nausea, vomiting, abdominal cramps, abdominal distension and, possibly, obstipation. They may also have extraintestinal manifestations, as listed in Table 2.

Treatment of IBD

When diarrhea is significant, fluid and electrolyte replacement is very important. Codeine, diphenoxylate (Lomotil®) and loperamide (Imodium®) may be helpful in controlling diarrhea and abdominal cramps, especially in mild disease. In patients with severe disease, these drugs should be avoided, as they can be associated with development of toxic megacolon. Cholestyramine (Questran®) can be helpful to control diarrhea secondary to malabsorption of bile salts in CD involving the terminal ileum and patients who have an ileal resection.

The medications used in IBD are similar for both CD and UC. Therapy has to be individualized for patients depending on the severity of the disease, location of the disease and previous response to therapy. Drug therapy can include oral therapy, rectal therapy including suppositories and enemas, intravenous therapy and subcutaneous injections. The drugs used to treat IBD include 5-aminosalicylic drugs, steroids, immunosuppressive agents and antibiotics.

Surgical therapy may be necessary for patients who do not respond to medical therapy and those who require surgery for complications.

Risk of Cancer in IBD

There is an increased risk of colon cancer in patients with IBD. The increased risk is mainly in UC with a slight increase in CD. The risk in UC is related to two factors, duration of disease and extent of disease. Patients with pancolitis have a higher risk than patients with left-sided colitis, and the increased risk begins earlier. Surveillance colonoscopies with biopsies throughout the colon to look for dysplasia should begin 7-8 years after onset of UC in patients with pancolitis, and 10-12 years in patients with left-sided colitis. Patient with disease confined to the rectum, have only a slight increased risk of colon cancer and do not require colonoscopies for dysplasia surveillance.

The bottom line is:

There is an increased risk of colon cancer in patients with Inflammatory Bowel Disease, particularly for patients with ulcerative colitis. Surveillance colonoscopies with biopsies throughout the colon to look for dysplasia is recommended, unless the disease is confined to the rectum. Dysplasia surveillance should commence 7-12 years after onset of UC, depending on the extent of the disease.

This newsletter will be posted on our website (www.vaughanendoscopy.com) thus your patients are able to download a copy for reference. Other GI topics of interest will be published periodically.