ULCERATIVE COLITIS

Tamar Gigishvili
(Tbilisi, Georgia)

Abstract

The paper describes Ulcerative Colitis as a pathology, its pathognomic signs, pathophysiological process, diagnostic criterions and its Management. It is discussed news in Protocols.

Keywords: Ulcerative Colitis, Endoscopy, Chronic Disease, Crohn`s Disease, Fulminant form, Mesalamine, Sulfasalasine.

In the following Article is discussed Ulcerative Colitis as a pathology and its management. Ulcerative colitis (UC) is one of the two major types of inflammatory bowel disease (IBD), along with Crohn disease (CD). Unlike Crohn disease, which can affect any part of the gastrointestinal tract, ulcerative colitis characteristically involves the large Intestine. Ulcerative colitis is a lifelong illness that has a profound emotional and social impact on the affected patient

The exact etiology of ulcerative colitis is unknown, but the disease appears to be multifactorial and polygenic. The proposed causes include environmental factors, immune dysfunction, and a likely genetic predisposition. Some have suggested that children of below-average birth weight who are born to mothers with ulcerative colitis have a greater risk of developing the Disease.

In the United States, about 1 million people are affected with ulcerative colitis (UC). The annual incidence is 10.4-12 cases per 100,000 people, and the prevalence rate is 35-100 cases per 100,000 people. Ulcerative colitis is three times more common than Crohn disease.

Ulcerative colitis occurs more frequently in white persons than in black persons or Hispanics. The incidence of ulcerative colitis is reported to be 2-4 times higher in Ashkenazi Jews. However, population studies in North America do not completely support this assertion.

A variety of immunologic changes have been documented in ulcerative colitis. Subsets of T cells accumulate in the lamina propria of the diseased colonic segment. In patients with ulcerative colitis, these T cells are cytotoxic to the colonic epithelium. This change is accompanied by an increase in the population of B cells and plasma cells, with increased production of immunoglobulin G (IgG) and immunoglobulin E (IgE).

Anticolonic antibodies have been detected in patients with ulcerative colitis. A small proportion of patients with ulcerative colitis have antismooth muscle and anticytoskeletal antibodies.

Microscopically, acute and chronic inflammatory infiltrate of the lamina propria, crypt branching, and villous atrophy are present in ulcerative colitis. Microscopic changes also

include inflammation of the crypts of Lieberkühn and abscesses. These findings are accompanied by a discharge of mucus from the goblet cells, the number of which is reduced as the disease progresses. The ulcerated areas are soon covered by granulation tissue. Excessive fibrosis is not a feature of the disease. The undermining of the mucosa and an excess of granulation tissue lead to the formation of polypoidal mucosal excrescences, which are known as inflammatory polyps or pseudopolyps.

In some cases, ulcerative colitis has a fulminant course marked by severe diarrhea and cramps, fever, leukocytosis, and abdominal distention. Fulminant disease occurs more often in children than in adults. An estimated 15% of patients present with an attack severe enough to require hospitalization and steroid therapy. Children may also present with systemic complaints, including fatigue, arthritis, failure to gain weight, and delayed puberty. The differential diagnosis of these symptoms in the pediatric population includes many entities, and definitive diagnosis may be delayed.

The diagnosis of ulcerative colitis (UC) is best made with endoscopy and mucosal biopsy for histopathology. Laboratory studies are helpful to exclude other diagnoses and assess the patient's nutritional status, but serologic markers can assist in the diagnosis of inflammatory bowel disease. Radiographic imaging has an important role in the workup of patients with suspected inflammatory bowel disease and in the differentiation of ulcerative colitis from Crohn disease by demonstrating fistulae or the presence of small bowel disease seen only in Crohn disease.

Medication

The goals of pharmacotherapy are to reduce morbidity and to prevent complications. The treatment of ulcerative colitis (UC) relies on initial medical management with corticosteroids and anti-inflammatory agents, such as sulfasalazine, in conjunction with symptomatic treatment with antidiarrheal agents and rehydration.

Newer agents for induction and/or maintenance include tumor necrosis factor (TNF) inhibitors, vedolizumab, tofacitinib, ustekinumab, and ozanimod.

Sulfasalazine is useful in treating mild-to-moderate ulcerative colitis and maintaining remission. It acts locally in the colon to reduce the inflammatory response and systemically inhibits prostaglandin synthesis.

Balsalazide is a prodrug that is converted into 5-aminosalicylic acid through bacterial azo reduction. Metabolites of drug may decrease inflammation by blocking the production of arachidonic acid metabolites in colon mucosa.

Mesalamine is the drug of choice for maintaining remission. It is useful for the treatment of mild-to-moderate ulcerative colitis. It is better tolerated and has less adverse effects than sulfasalazine. Enema and suppository forms are typically used in patients with distal colitis.

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