

A Review on Inflammatory Bowel Disease: Diagnosis and Treatment

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Abstract: *Inflammatory bowel disease:-is chronic inflammation and group of disease GIT tract IBD include two idiopathic bowel disease include crohn's disease and ulcerative colitis which is differ to each other only on morphological appearance. IBD was caused by various factor like genetic factor, immunological factor microbial factor and psychosocial factor. the various complication occur in IBD fistula formation, stricture formation, malabsorption, malignancy and carcinoma. The treatment of IBD is very complex because there are several factors that induce inflammation in the GI tract. There is a need to cause a variation of pharmacokinetic drugs. The basic aim of treatment is relief symptoms, induction of remission, prevention relapse, healing of fistulae, avoidance of emergency surgery. The drugs given in Crohn's disease have an effect at a particular site of the intestine. [1] Inflammatory bowel disease (IBD) contains two chronic idiopathic inflammatory diseases that are ulcerative colitis (UC) and Crohn disease (CD). . Clinical, endoscopic, histological, and radiologic features are used to diagnose one from another. Studies of the mucosal enzyme have shown that patients with Crohn's disease have significantly reduced the brush border enzyme (disaccharides) but no change in the function of the cytoplasmic enzyme (Dipeptidase). The enzyme level in patients with ulcerative colitis did not differ from the healthy controls. The reduction of brush border enzymes with normal cytoplasmic enzymes in the presence of abnormal morphometry is further evidence of the concept of Crohn's disease diffuse lesion of the gastrointestinal tract. [2]*

Keywords: IBD (Inflammatory bowel disease), ulcerative colitis, crohn's disease

1. Introduction

Inflammatory bowel disease (IBD) is a chronic idiopathic disease affecting the gastrointestinal (GI) tract that is comprised of two separate, but related intestinal disorders; Crohn's disease (CD) and ulcerative colitis (UC). Ulcerative Colitis (UC) and Crohn's Disease (CD), relapsing and remitting disease characterized by chronic gastrointestinal tract inflammation. [3]. Crohn's disease is a debilitating illness of the bowel characterized by chronic inflammation of unknown etiology. [4] These diseases represent the outcome of 3 essential interactive cofactors: host susceptibility, enteric microflora, and mucosal immunity. Inflammatory bowel disease (IBD) may arise because of a breakdown in the regulatory constraints on mucosal immune responses to enteric bacteria. [5]

Most students studying the pathogenesis of IBD have accepted the idea that the disease is systemic. In one version of this theory, the microflora is standardized in terms of quality and volume and the pathogenesis of the disease lies in the immune system. In this case, the normal state of immunologic tolerance to microbial antigens in the GI tract is disrupted or the presence of T cell mucosal effectors incorrectly., either by the number or type of organisms that comprise the population or by the degree to which organisms respond to the immune system. This also causes a loss of tolerance, as the microflora is later able to induce the immune system which normally reacts excessively to small antigens.

Types of Inflammatory Bowel Disease

- 1) Inflammations of known cause
- 2) Inflammations of unknown cause. [6]

Inflammations of Known Cause

These inflammations may be due to infection, ischemia, physical damage such as irradiation, or a specific immunologic sensitivity such as to cow's milk protein. They may be further sub-classified in accordance with the region of the gut affected, such as tuberculosis enteritis or colitis, and the response of the host.

Example. Virus: Chlamydia, Bacterial: Cytornegalouirus
Campylobacter, Clostridium difficile.

Nematodes: Schistosoma, Strongyloides

Inflammations of Unknown Cause

These disorders may be classified in terms of their epidemiology (such as familial tendency), symptoms, structural appearance, path genetic mechanism, prognosis, or response treatment Non-specific inflammatory bowel Disease may be divided into several categories.

Ulcerative colitis (proctitis), Crohn's disease, Collagenous colitis, Eosinophilic enteritis

Crohn's disease is associated with the production of IL-12 / IL-23 and IFN- γ / IL-17 production affecting the small intestine and colon with a chronic ulcer and full-thickness intestinal walls usually involving granulomas [7]. In ulcerative colitis, i-cytokine patterns are less clear; is not a TH1 response and appears, at least in a fixed disease, to be a modified TH2 response associated with cytokines such as IL-5 and IL-10.3, 5In ulcerative colitis, cytokine patterns are less clear; is not a TH1 response and appears, at least in a fixed disease, to be a modified TH2 response associated with cytokines such as IL-5 and IL-10.3 [8-9]

Symptoms of Inflammatory Bowel Diseases

GIT symptoms of abdominal pain, diarrhea, and gastrointestinal bleeding as well as systemic symptoms of weight loss, fever, and fatigue. Crohn's patients may also

have intestinal obstruction and fistulae between the intestinal tract or between the intestines and the skin and other organs. In comparison, ulcerative colitis is associated with excessive IL-13 production, which mainly affects the colon, with continuous inflammation of the mucosa almost always involving the rectum and progressing [10]. All the symptoms are similar to Crohn's disease, but the development of fistula does not occur. Usually both conditions do not go away and they go back, however. Ulcerative colitis is a disease treated with colon surgery due to Crohn's disease and it treats intestinal obstruction, fistula problems, bleeding and uncontrollable pain. Additional CD intestinal symptoms associated with intestinal inflammation include spondylo arthritis (ankylosing spondylitis and sacroiliitis), peripheral arthritis, skin manifestations (erythematous nodosum and pyoderma gangrenosum) and ocular inflammation (uveitis, i-episcleritis or sclera-conjunctivitis), primary cholangitis and hyper colangitis. CD also causes complex conditions such as malabsorption (e. g. anemia, cholelithiasis, Nephrolithiasis or arthritis).

Criteria for Diagnosis of Ulcerative Colitis

Diagnosis of ulcerative colitis:

Exclusion:

Infective colitis (microbiology) Ischemic colitis (predisposing factors, distribution of disease, histology) Irradiation colitis (history) Solitary ulcer (situation, histology) Abnormalities suggesting Crohn's disease, such as Complex anal lesion (physical examination) Granulomata (biopsy) Continuous mucosal inflammation without as small-bowel disease (X-ray)

Inclusion:

Granulomata (biopsy) Affecting the rectum (endoscopy) and some or all of the colon in continuity with the rectum (endoscopy or barium enema)

Criteria for Diagnosis of Crohn's Disease

Crohn's disease is characterized as much by its macroscopic features as by microscopic abnormality [11]¹. The macroscopic features can be recognized by physical examination, endoscopy, radiology, and examination of an operative specimen. The microscopic features can be recognized only partly on mucosal biopsy but completely on examination of an operative specimen (Table IV). It is thus expecting too many mucosal biopsy specimens to regard their histologic appearance as the final arbiter of clinical diagnosis, except in the unusual event of granulomata being detected. If so desired, the diagnosis can be defined as the presence of any number of the features; three is suggested. The characteristic granuloma, when present, is regarded as diagnostic and may thus be given greater weight than other features. In practice, the clinical diagnosis can be made as follows:

Exclusion:

Infections (microbiology, including Yersinia Ischaemia (predisposing factors, distribution of Irradiation (history) Lymphoma/carcinoma (previous coeliac disease, suggestive radiologic features, prognosis)

Inclusion:

Mouth to anus Chronic granulomatous lesion of the lip or buccal mucosal (inspection, biopsy) Pyloro-duodenal disease (radiology. endos-Small-bowel disease (radiology, endoscopy, Chronic anal lesion (clinical examination) Discontinuous Lesions separated by normal mucosa, which may be widely separate, or 'skip lesions' along the length or around the circumference, or discrete ulcers (endoscopy, radiology, specimen) Transmural Fissuring ulcers (radiology, specimen) Abscess (clinical, imaging) Fistula (clinical, radiology, specimen) Granulomat Not present in all cases of Crohn's disease, distinguish from caseating granulomata of tuberculosis, foreign-body granuloma.

Complication in Life During IBD

There is general agreement among doctors that UC stubborn to clinical administration requires careful mediation with colectomy. The issue becomes more mind boggling in understanding who are at present abating, however are inconvenienced by flare with the requirement for regular medical clinic affirmations. Personal satisfaction examinations were conducted utilizing the IBDQ, a visual simple scale (VAS), and the Oresland scale. The patient treated with CSA revealed a superior capacity to rest, better stool consistency, less stomach or rectal torment (VAS), and less day time, evening time (Oresland), and day to day go to the latrine (VAS) as contrast with the careful patients. The mean number and pace of hospitalizations inside the principal year was likewise lower in the CSA patients [12]

Treatment Management

The proper medical cure for CD or UC is not available, but medical therapy gives the result to make situation better, both at reducing symptoms and at reducing intestinal inflammation. The classes of drugs most usually used to treat IBD incorporate corticosteroids, antimicrobials, mitigating specialists (5-aminosalicylates), immuno-modulators (6-mercaptopurine, azathioprine and methotrexate) and fresher biologic treatments. The treatment of IBD in light of treatment illness area, seriousness and aggregate for f expected advantages and dangers. treatment of dynamic infection which can prompt sickness movement and confusions. Medical procedure for IBD is just for medically unmanageable cases [13].

Surgery for IBD

Surgical treatment of IBD is based largely on case series from major treatment centers. Controlled trials are the exception and have often been terminated prematurely because of slow recruitment Laparoscopic techniques have been found safe for the treatment of patients with IBD and have advantages of minimise surgery (rapid recovery, little postoperative pain). They are therefore now used routinely in small-bowel segmental resection, stricturoplasty, ileocecal resection, and in rare cases, gastroenterostomy (if the duodenum is involved). The preferred method of treatment for intestinal pain is subtotal colectomy without any intestinal anastomosis, with a temporary ileostoma, followed by proctectomy and the formation of bags over time (a three-stage procedure). On the other hand, during the non-inflammatory period, the most common surgical treatment for ulcerative colitis is proctocolectomy recovery with ileo-

pouchanal anastomosis (IPAA) and protective ileostoma (a two-stage procedure) [14].

2. Conclusion

Review of study of cause, pathogenesis and treatment of IBD has provided understanding of this complex disorder. The cause of IBD is unknown; rather clinicians and researchers now understand the problem and are able to go forward to give best treatment for the disease on several levels.-Recent approvals and novel therapies in development offer alternatives to existing therapies for IBD with the hope that in the near future more patients can attain disease remission. It is also found that there is enzyme deficiency at the brush border of the small intestine. Lack of enzymes causes abdominal morbidity.

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