Medical Therapy for Inflammatory Bowel Disease

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KEYWORDS

• Inflammatory bowel disease • Crohn's disease • Ulcerative colitis • Fistula
• Fulminant colitis • Perioperative management

KEY POINTS

- The goal of medical treatment in inflammatory bowel disease (IBD) is to suppress inflammation and induce mucosal healing.
- There are multiple different classes of medications that are effective in IBD, many of which can be used concomitantly.
- The perioperative medical management of IBD can be challenging, and physicians must weigh the possible increased risk of surgical complications versus the potential for recurrent disease without appropriate therapy.

INTRODUCTION

Surgeons often care for patients with inflammatory bowel disease (IBD) who are receiving therapies that can include 5-aminosalicylic acid (5-ASA) compounds, steroids, immunomodulators, and biologics. The goal of these agents is to suppress intestinal inflammation, ultimately improving the quality of life in patients afflicted with IBD. Conventional IBD treatment paradigms have followed a stepwise treatment approach, with intensified therapies used only when symptoms are not resolved with an earlier treatment (**Fig. 1**). However, more recent data suggest that initiation of higher-tiered disease modification therapies early in the course of disease can modify disease progression and thus alter the natural history of IBD.

Initial IBD treatment is aimed at inducing remission, whereas subsequent therapies are chosen to maintain remission. Traditionally, an acceptable therapeutic endpoint was the resolution of symptoms, defined as clinical remission. However, as a result

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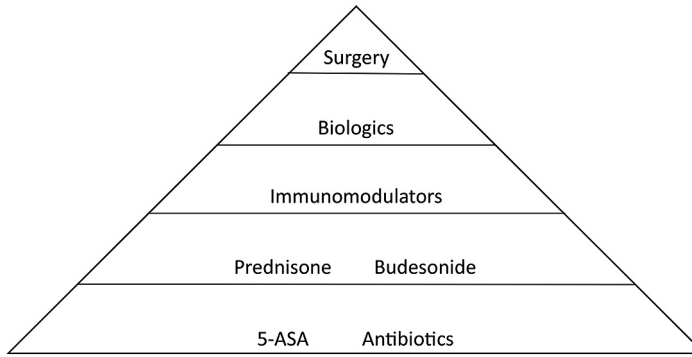

Fig. 1. A simplified approach to stepwise treatment of IBD.

of recent advances in therapy, clinicians can now strive to achieve more stringent endpoints, such as endoscopic and histologic remission. Although there is variability regarding the precise endoscopic and histologic criteria required to achieve mucosal healing, the concept of mucosal healing refers to the normalization of gut mucosa. Numerous studies have demonstrated that mucosal healing can reduce relapse rates as well as the need for corticosteroids, hospitalizations, and surgeries.[1–6] In addition, chronic colonic inflammation is a risk factor for colorectal cancer in patients with IBD.[7,8] Therefore, mucosal healing may also potentially decrease the risk for colorectal malignancy.

Many different classes of agents can be used, individually or in combination, to achieve mucosal healing. Treatment must be individualized based on the aggressive nature of a patient's disease, their treatment goals, and their tolerability of various medications. Recent data have illustrated a synergistic effect of combination therapy with biologics and immunomodulators,[9–12] which is used frequently for patients with more aggressive disease. Patients on advanced therapies require special care, counseling, and consideration with regards to not only efficacy of the drugs but also adverse effects as well as the perioperative and peripartum use of these medications.

INFLAMMATORY BOWEL DISEASE MEDICATIONS

5-Aminosalicyclic Acid Compounds

5-ASA compounds are a class of medication used for the induction and maintenance of remission in patients with IBD. They have been the traditional first-line therapy in the treatment of mild to moderate ulcerative colitis (UC); efficacy in Crohn's disease (CD) remains controversial.

Action and metabolism

Sulfasalazine, oral mesalamine (Pentasa, Asacol HD, Delzicol, Lialda, and Apriso), rectal mesalamine (Rowasa and Canasa), olsalazine, and balsalazide are drugs that deliver 5-ASA to various parts of the gut (**Table 1**). Sulfasalazine, the first drug developed in this class, is a prodrug composed of 5-ASA and sulfapyridine that was originally proposed as a treatment for rheumatoid arthritis. It was soon discovered to be effective in the treatment of IBD. Isolation of the active 5-ASA compound was undertaken because most adverse effects patients experienced were secondary to the sulfapyridine moiety. As a result, multiple other formulations have been developed for use in IBD, many of which target different areas of the gastrointestinal tract. The precise mechanism responsible for the clinical efficacy of the 5-ASA compounds is unknown,