

**MODERN PRINCIPLES OF TREATING ULCERATIVE COLITIS: FROM SIMPLE TO  
COMPLEX**

**Ubaidova Dilafroz Saddikovna, Ismatova Mexriniso Nasriddinovna**  
Bukhara State Medical Institute, Uzbekistan, Bukhara

**Abstract.** Currently, the choice of medications for the treatment of non-specific ulcerative colitis and the determination of its duration remain a controversial issue. When treating ulcerative colitis, 5-aminosalicylic acid derivatives (mesalazine) are used as a first-line therapy. The choice of a drug and its form requires an individual approach, and when making a decision about therapy, it is necessary to take into account the duration of the inflammatory process, the activity of the inflammatory process, and the level of drug safety.

**Key words:** Nonspecific ulcerative colitis, 5-aminosalicylic acid preparations, mesalazine

In the last decade, there has been an increase in inflammatory bowel diseases in gastroenterology patients, among which ulcerative colitis is predominant [4]. The disease is characterized by the uncertainty of its etiology, the complexity of its pathogenesis, frequent relapses, life-threatening complications and lack of treatment [2]. Currently, the following are considered the main pathogenetic causes of ulcerative colitis: genetic predisposition, disturbance of the protective function of intestines, disturbance of intestinal microflora and immune system [1]. Group 1 drugs reduce the production of prostaglandins, reduce the activity of neutrophils, reduce the synthesis of IL-2, IL-1, IL-6. Sulfasalazine drugs from the 5-ACE group are not the drug of choice today, because it has significant side effects (nausea, headache, allergic reactions) related to the sulfapyridine molecule [6,7]. 5-aminosalicylic acid products - mesalazine are used. Important properties of these drugs include: inhibition of cyclooxygenase and lipoxygenase, reduction of pro-inflammatory prostaglandins and leukotrienes [8]. In addition, 5-ASA drugs have antioxidant properties that play a role in inhibiting the activation and proliferation of T-cells.[2;5] The main goal of treating a patient with UC is steroid-free remission, prevention of complications, prevention of surgical treatment, improvement of patients' quality of life and prevention of tumor diseases. Mesalazine drugs are considered the main group of drugs in the treatment of UC. There are different forms of drugs: suppositories (for proctitis), microclysms (for left-sided colitis) have good results. The tablet form is covered with a special shell and has the property of dissolving only in an environment with a pH of 6.5 [9]. Proves its effectiveness in supporting the induction and maintenance of remission in patients. When the drug is taken orally, it is more absorbed in the small intestine, and a small part of it enters the large intestine intact. Therefore, a combination of oral and rectal forms of mesalazine is used as adequate therapy. Currently, there are 3 oral forms of aminosalicylates: these are 5-ASK in an acrylic polymer - L eudragit shell, which allows release depending on pH; In recent years, some progress has been made in the treatment of UC [3; 13-11]. Glucocorticosteroids are used in the treatment of severe forms of NYaK. In this regard, emphasis is placed on budesonide. In the following days, 5-lipoxygenase inhibitors are widely used. Leukotriene B4 is one of the 5 metabolites of arachidonic acid, which is formed under the action of the 5-lipoxygenase enzyme and plays an important role in the onset and progression of mucosal inflammation. Another new method of stopping the synthesis of leukotrienes is the use of zileuton. It is a selective inhibitor of 5-lipoxygenase and an antagonist of leukotriene B4 receptors.

According to Lauratsen, clinical, endoscopic and histological results were achieved when 200mg of zileuton was taken 4 times [10]. Representatives of the 3rd group (Azathioprine, Methotrexate, cyclosporine) form the reserve of UC drug therapy and are mainly prescribed in cases of hormonal dependence and resistance. 1st-line drugs include 6-mercaptopurine (1-1.5 mg/kg) and azathioprine (2-2.5 mg/kg), as this is the most successful combination. FNO-alpha inhibitors: infliximab, adalimumab, golimumab drugs have an anti-inflammatory, targeted effect on the affected area [9]. Targeted therapy is expensive. Therefore, these drugs are used only when standard treatment is ineffective. Group 4 drugs have a more targeted effect than the previous groups, gene engineering biological drugs, neutralization of pro-inflammatory cytokines and their receptors, necessary adhesion or signaling molecules, transductions, anti-inflammatory cytokines balance [3;4]. It is also necessary it should be noted that in the absence of maintenance therapy in patients with UC, the frequency of exacerbations during the year reaches 75-80%. In this regard, it is necessary to highlight results of evidence-based medicine in this aspect. Glucocorticoids are not able to prevent the presence of exacerbations of the disease.

Only for those patients who have there is constant activity of the inflammatory process in the intestines, it is legal to prescribe prednisolone at a dose of 40 mg every other day. This assignment scheme reduces the risk of further exacerbation diseases. While taking salazosulfapyridine (at a standard dose of 2 g/day) relapses within a year do not occur in 70% of patients (with placebo - in 24%). At a dose of the drug 1 g/day, the frequency of relapses higher. At the same time, with an increase in supporting doses up to 4 g/day, the frequency of side effects increases therapy.

To date, drugs that have successfully passed clinical trials have been developed. By doing so, it restores the balance of anti-inflammatory and anti-inflammatory lipids and improves the immune system. UC can be treated with surgery. However, autoimmune inflammation can develop in the rest of the intestine, and colon function can be very difficult to restore. This shows that surgical treatment should be used in the case of tumor diseases of the gastrointestinal tract, toxic dilatation of the intestine, and when conservative treatment is ineffective.

### **CONCLUSION**

For the majority of patients with UC, it is appropriate to use 5-aminosalicylic acid drugs both in monotherapy and in combination with other treatment methods. Undoubtedly, the international standard of treatment and the results of the conducted scientific research show that the combined use of oral and rectal forms of mesalazine for patients with UC is highly effective and shows that it leads to prolonged remission. The choice of drugs and their forms is individual for each patient, taking into account the duration of the disease, the spread of the process, the severity of the disease and the patient's ability to tolerate the treatment.

### **LITERATURE**

1. Cosnes J., Gower-Rousseau C., Seksik P., Cortot A. Epidemiology and natural history of inflammatory bowel diseases. *Gastroenterology*. 2011;140:1785–94.
2. Silverberg M.S. et al. Toward an integrated clinical, molecular and serological classification of inflammatory bowel disease: report of a working party of the 2005 Montreal World Congress of Gastroenterology. *Can. J. Gastroenterol.* – 2005;19(Suppl A):5–36.
3. Григорьев, П. Я. Справочное руководство по гастроэнтерологии / П. Я. Григорьев, Э. П. Яковенко. – М.: Мед. информ. агентство, 1997. –480 с. Grigor'ev P. Ya., Yakovenko E. P.

- Spravochnoe rukovodstvo po gastroehnterologii [The reference guide on gastroenterology]. Moscow, Med. inform. agentstvo Publ., 1997. 480 p. (In Russ.)
4. Baumgart DC. The Diagnosis and Treatment of Crohn's Disease and Ulcerative Colitis. Deutsches Ärzteblatt International Dtsch Arztebl Int. 2009;106(8):123–33.
  5. D'Haens G. et al. A review of activity indices and efficacy end points for clinical trials of medical therapy in adults with ulcerative colitis. Gastroenterology 2007;132:763–86.
  6. Григорьева Г.А., Мешалкина Н. Ю. О проблеме системных проявлений воспалительных заболеваний кишечника. Фарматека. 2011. № 15. С. 44–49. Grigor'eva G.A., Meshalkina N. Yu. O probleme sistemnykh proyavlenij vospalitel'nykh zabolevanij
  7. Масевич, Ц. Г. Современная фармакотерапия хронических воспалительных заболеваний кишечника / Ц. Г. Масевич, С. И. Ситкин // Aqua Vitae. –2001. –№ 1. С. 37–41.
  8. Справочник по колопроктологии под редакцией проф. Шельгина Ю. А., проф. Благодарного Л. А. «Литтерра». – 2012. – С.460–522. )
  9. Убайдова Д.С. НЕСПЕЦИФИЧЕСКИЙ ЯЗВЕННЫЙ КОЛИТ: СОВРЕМЕННЫЕ ПОДХОДЫ К ДИАГНОСТИКЕ И ЛЕЧЕНИЮ SYNERGY: JOURNAL OF ETHICS AND GOVERNANCE Volume: 03 Issue: 12 | Dec- 2023 ISSN: 2181-2616
  10. Ubaydova D. S. Molecular genetic diagnosis of inflammatory bowel diseases Asian journal of Pharmaceutical and biological research Volume 12 Issue 1 JAN.-APR. 2023
  11. Ubaydova D. S. Nonspecific Ulcerative Colitis: Modern Approaches to Diagnosis and Treatment / RESEARCH JOURNAL OF TRAUMA AND DISABILITY STUDIES Volume: 2 Issue: 12 | Dec – 2023