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A NEW APPROACH TO THE TREATMENT OF ULCERATIVE COLITIS

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Abstract. Background. Assessment of the effectiveness of the Modulen IBD mixture, which is used for the purpose of nutriciological support in the treatment of patients with ulcerative colitis. Material and methods. The study was carried out in the Department of Gastroenterology of the scientific and practical medical center of specialized therapy and medical rehabilitation of the Republic in 2020-2022. Results. The results obtained show that the mass of somatic adipose tissue increases after a course of nutritional support, it is not known whether the amount of visceral fat has changed. It should be noted that the thickness of the skin-fat fold of the triceps has not changed significantly, which makes it possible to predict the redistribution of body fat towards an increase in body fat reserves, while the amount of fat tissue in the fly does not increase.

Keywords: ulcerative colitis, nutritional status, enteral feeding,"Modulen IBD"

Introduction. Due to the fact that the clinical picture of UC is characterized to some extent by the presence of diarrhea, malabsorption, in some cases stenosis and bleeding syndromes, eating disorders are observed in most patients. This is expressed in a decrease in body weight, a decrease in the amount of total protein, albumin, hemoglobin in the blood. In these patients, especially during lambing, a deficiency of negative nitrogen balance, protein, iron, calcium, magnesium, folic acid is detected [2, 5, 10-17].

Anti-inflammatory drugs are traditionally used in the treatment of patients with UC, such as Group 5 aminosalicylic acid (salofalk, sulfasalazine), corticosteroids (budesonide, prednisolone), immunosuppressants (azathioprine), inhibitors of the tumor necrosis factor (infliximab). These drugs affect the pathogenesis of the disease and reduce the acute symptoms of inflammatory syndrome, but this practically does not affect the nutritional status of patients, the symptoms of nutritional deficiencies, hypo - or vitamin deficiency, anemia, in some cases – osteoporosis, alopecia and hypogonadism are preserved [1, 3, 18-28].

Fully balanced nutritional mixtures may be prescribed for Enteral Nutrition in order to improve nutritional status.One of these modern nutritional mixtures is "Modulen IBD" ("Nestle", Switzerland), specially designed to feed patients with inflammatory bowel diseases. In 100 g of dry mixture "Modulen IBD " contains 18 g of milk protein, 23 g of fat, 54 g of carbohydrates, 14 macro and microelements and 13 vitamins. The energy value of 100 g of the mixture is 500 kcal, the osmolarity is 270 mosm / L [5, 8, 29-35].

A distinctive feature of the "Modulen IBD" mixture, which provides its medicinal properties, is the presence of anti-inflammatory mucosal growth factor

(TGF-B2) in the intestinal mucosa of patients, which reduces the initial increase in interleukin-1, interleukin-8 and interferon gamma levels [4, 7].

The “Modulen IBD " mixture is intended for oral administration or probe enteral feeding. It can be prescribed in the amount of 1-3 cups per day as an addition to the main diet or as the only food source [6, 9].

The use of “Modulen IBD” in patients with inflammatory bowel diseases allows:

* ensure adequate delivery of nutrients and energy;

* compensate for the lack of proteins, iron, calcium, other macro - and microelements and vitamins;

* accelerate the onset of remission of the disease by reducing inflammatory activity and strengthening the restoration of the damaged mucous membrane.

It is prescribed in patients with UC in the presence of signs of lack of enteral nutrition, lack of macro - and microelements. Currently, neither parenteral nor enteral nutrition is used as monotherapy [10]. Due to the listed reasons, there was a need to develop a new method with the aim of restoring nutritional status in patients with UC.

The purpose of the research. Assessment of the effectiveness of the Modulen IBD mixture, which is used for the purpose of nutriciological support in the treatment of patients with ulcerative colitis.

Research material and methods. The study was carried out in the Department of Gastroenterology of the scientific and practical medical center of specialized therapy and medical rehabilitation of the Republic (RIT and TRIATM) in 2020-2022. The study included 48 patients who received both inpatient and outpatient treatment with UC. The median age of patients was 36.8 ± 10.4 years.

In this group of patients, the following indicators were used to determine nutritional deficiencies: body mass index (BMI) < 19 kg/m2, shoulder circumference < 26 cm (for men) and < 25 cm (for women), thickness of the skin-fat fold above the triceps (SFFAT) < 9.5 mm (for men) and < 13 mm (for women), Total Protein < 65 g/l, albumin < 35 g/l.

In addition UC was evaluated on the Truelove and Witts and Meyo indices before treatment and 3 months after treatment for the purpose of determining activity levels. At the same time, a special laboratory indicator for UC was determined – the level of fecal calprotectin in the stool.

All patients received Bazis drug therapy, which includes preparations of 5 aminosalicylic acid (sulfasalazine, salofalk) and corticosteroids (prednisolone).

All patients are divided into two groups:

* Patients of the main group (30 people) received a mixture of “Modulen IBD” with a volume of 400-600 ml per day for 12-14 days, in addition to basic therapy (5-aminosalicylic acid (5-Ask)) and regular dietary nutrition. The mixture is prescribed in small portions in 2-3 doses between main meals (with the"Siping" method).

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* Control group (30 people) patients received only basic drug therapy (5-Ask + glucocorticosteroids (GKS)) and dietary nutrition. Support for nutrition with a mixture of" modulen IBD " was not carried out.

In the main and control groups, there were no significant differences in gender, age, location of intestinal lesions, severity of the disease, and type of existing nutritional deficiencies.

The assessment of the nutritional status and effectiveness of nutritional support was evaluated according to the following indicators:

* body weight index and body weight dynamics;

* circumference of shoulder and shoulder muscles (somatic protein);

* thickness of skin-fat folds (using caliper)at Standard points under the biceps, Spade and in the chov area;

Statistical data processing was done using the SPSS Statistics 17.0 (USA) software package. The χ square criterion (Pearson's criterion) was used to statistically compare the principal and control groups. If the expected number of observations in some cells of the table is less than 5, Fisher's explicit criterion was used to determine the level of statistical reliability.

Research results. Analysis of clinical indications shows that as a result of increased protein loss through the intestine and an active inflammatory process, nutritional deficiencies and associated nutrient and energy deficiencies slow down reparative processes in the mucous membrane of the small and large intestine, and eventually an increase in the remission time of the disease occurs.

The primary group of people with ulcerative colitis had 17 men (56.7%), 13 women (43.3%), and the control group had nearly equal numbers of men and women (14 (46.7% and 16 (53.3%), respectively. The mean age distribution of the primary and control groups is 32.4±5.6 and 34.2±6.8, respectively. In terms of activity level in Truelove and Witts, 2 LA was also significantly active in the group. In the case of the Meyo index, too, 2 La showed the same value in the group 2 (Table 1).

Table 1.

Differentiation of groups with ulcerative colitis

Patient group	**Gender**	**Age**	**Activity level in Truelove and Witts**	**Meyo index**
Main group (5-ASK+ Modulen IBD) n=30	17 male 13 female	32,4±5,6	Moderate activity	2
Control group (5-ASK+GKS) n=30	14 male 16 female	34,2±6,8	Moderate activity	2

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During treatment, activity levels in Truelove and Witts and the Meyo index changed positively in the core group in more patients than in the control group (Table 2).

Table 2

UC activity level dynamics

	Activity level in Truelove and Witts		**Meyo index**	
	Before treatment	After treatment	Before treatment	After treatment
Main group (5-ASK+ Modulen IBD) n=30	30	25	30	26
Control group (5-ASK+GKS) n=30	30	27	30	27

In patients with UC, the fecal calprotectin post-treatment rate was much lower in the primary group than in the control group, i.e., before treatment, fecal calprotectin in the primary group decreased 4.2 times the pre-treatment rate (645), while in the control group it decreased 5.1 times (130) from the initial result (668) (Figure 1).

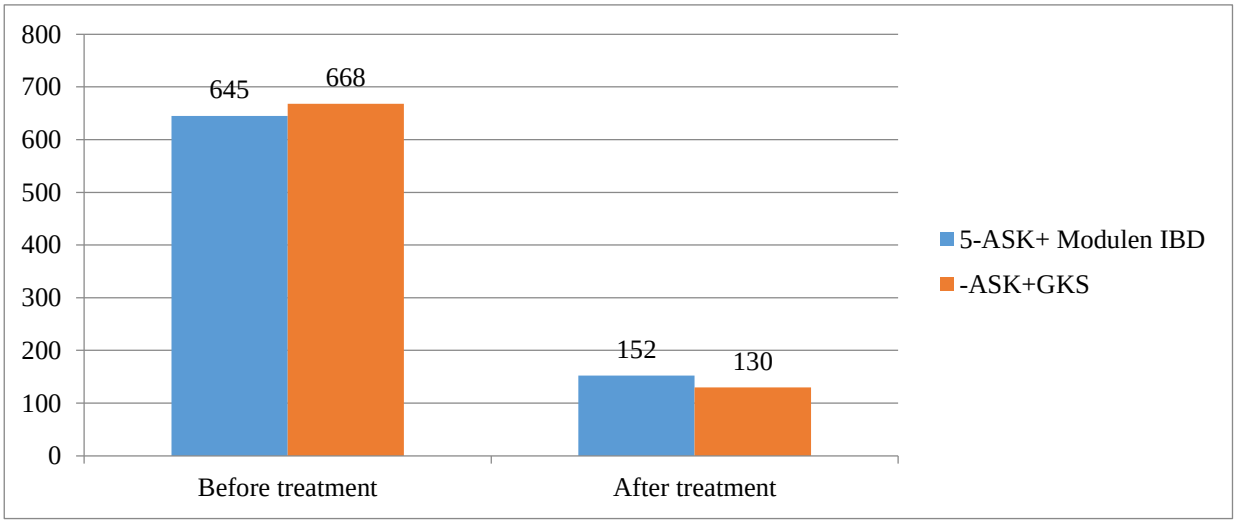

Figure 1. Indication of fecal calprotectin before and after treatment

A statistically significant increase in body weight (R<0.01) and body mass index (R<0.01) followed a course of nutritional support in the form of supplemental enteral nutrition. But the most important clinical effect of nutritional support should be considered a change in the composition of the body due to an increase in muscle

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mass and blood proteins, that is, an increase in the somatic and visceral amount of protein. This fact is confirmed by a statistically significant increase in lean body weight (R<0.05) and shoulder circumference (R<0.001), while being explained by a relatively strong (for lean body mass) and a very strong (for shoulder circumference) nutritional support and an increase in these indicators of nutritional status (Table 3).

Table 3

Patients with UC nutritional status indicators

Indicators	**Main group**		**Control group**	
	Before treatment	**After treatment**	**Before treatment**	**After treatment**
Body weight, kg	57,5+ 1,2	62,7+ 2,2	57,4+ 2,0	58, 4+ 2,2
BMI, kg/m^2	16,8+ 2,3	18, 5+ 2,1	17, 2+ 1, 2	18,4+ 1,4
Shoulder girdle, sm	22,2+ 1, 8	24, 5+ 1,5	23, 3+ 1, 7	23, 3+ 1,9
4 skin folds sum, mm	17,6+ 0,8	21, 6+ 0,7	18, 2+ 0,7	18, 8+ 1, 1

The results obtained show that the mass of somatic adipose tissue increases after a course of nutritional support, it is not known whether the amount of visceral fat has changed. It should be noted that the thickness of the skin-fat fold of the triceps has not changed significantly, which makes it possible to predict the redistribution of body fat towards an increase in body fat reserves, while the amount of fat tissue in the fly does not increase. This assumption can be confirmed by studies using only two-energy X-ray absorbciometry, which allows you to assess not only the fat mass, but also the amount of fat tissue in each limb, but the use of this method is limited by the high cost of the study.

Conclusion. Thus, after a course of support for nutrition with a mixture of “Modulen IBD” with the help of additional enteral nutrition in patients with UC, an improvement in nutritional status was noted, which indicates an increase in the body's plastic and energy reserves. Our study shows that the appointment of additional enteral nutrition with a mixture of “Modulen IBD” as part of complex treatment at the stage of UC lamination significantly improves the patient's nutritional status, helps to treat nutritional deficiencies and increases the body's energy and plastic reserves.

References

1. Naimovna, S. G., Kurbanovna, A., Shukurloevna, N. M., & Jabborovna, A. I. (2020). Evaluation of the gastrointestinal mucosa by the OLGA system in chronic atrophic gastritis. Journal of Critical Reviews, 7(2), 409-413.

2. Abdullaeva, U. K., Sobirova, G. N., Karimov, M. M., & Aslonova, I. J. (2020). The prevalence and possibilities of prevention of noncardial gastric cancer in the Bukhara region. American journal of medicine and medical sciences, 10(9), 679-681.

3. Abdullaeva, U. K. (2019). Predicting the risk of atrophic transformation in chronic gastritis using serum pepsinogen. World journal of pharmaceutical research, Faculty of Pharmacy Medical University, Bulgaria, 8(13), 219-228.

4. Sobirova, G. N., & Abdullaeva, U. K. (2018). Immunopatogenesis of chronic gastritis and its role in carcinogenesis. Journal of biomedicine and practice, Tashkent, Uzbekistan, 4, 20-27.

5. Karimov, M. M., Sobirova, G. N., & Abdullayeva, U. K. (2019). Chronic gastritis and carcinogenesis issues. Herald of Pancreatic Club, 45(4), 65-70.

6. Sobirova, G. N., & Abdullaeva, U. K. (2019). Chronic gastritis and carcinogenesis issues. Central Asian Problems of Modern Science and Education, 4(2), 159-172.

7. Karimov, M., Sobirova, G., Abdullaeva, U., Aslonova, I., & Tulyaganova, F. (2021). Possibilities of Serological Diagnosis of Atrophic Processes of the Gastric Mucosa.

8. Zhabborovna, A. I., Mukhuddinovna, T. F., Mirvasikovich, K. M., Naimovna, S. G., & Kurbanovna, A. U. (2021). Possibilities of serological diagnosis of atrophic processes of the gastric mucosa. European Journal of Molecular & Clinical Medicine, 7(11), 2955-2960.

9. Shamsutdinov, A. S., Abdullaeva, U. K., & Akhmedova, N. S. (2021). Determination of the level of pepsinogens in patients with chronic h. pylori associated gastritis. ACADEMICIA: An international multidisciplinary research journal, 11(2), 919-924.

10. Abdullaeva, U. K. (2019). The value of interactive teaching methods in improving the level of clinical knowledge of students. Medical education and professional development, (1), 33.

11. Karimov, M. M., Sobirova, G. N., Abdullaeva, U. K., & Aslonova, I. (2020). Zh., Tulyaganova FM Serological Diagnosis of Atrophic Processes of the Gastric Mucosa. The American journal of medical sciences and pharmaceutical research, 2(12), 118-124.

12. Mirzaeva, D. B., Abdullaeva, U. K., & Boboeva, R. R. (2019). The importance of interactive teaching methods in improving the level of clinical knowledge of students. Central Asian Problems of Modern Science and Education, 4(2), 159-166.

13. Orziev, Z. M., & Abdullaeva, U. K. (2015). Relationship between the effectiveness of cholelitholytic therapy and the state of contractility of the gallbladder. Bulletin of the Council of Young Scientists and Specialists of the Chelyabinsk region, (3), 10.

14. Orziev, Z. M., & Abdullaeva, U. K. (2016). Regional causes of extrahepatic" Subtransaminasemia". Biology and integrative medicine, (3), 28-40.

15. Orziev, Z. M., & Abdullaeva, U. K. (2015). The effectiveness of cholelitholytic therapy for cholelithiasis. Health is the basis of human potential: problems and ways to solve them, (10), 610-612.

16. Orziev, Z. M., Abdullaeva, U. K., & Yuldasheva, D. H. (2014). Method for early prediction of the efficiency of cholelytic therapy based on dynamic control of bild pH indicators in patients with cholelystone disease. Innovative development of modern science, 76-79.

17. Shadjanova, N. S., & Abdullaeva, U. K. (2021). New opportunities in the treatment of chronic lymphocytic leukemia. Asian journal of pharmaceutical and biological research, 10(3).

18. Karimov, M. M., Rustamova, S. T., Ismailova, Z., Abdullaeva, U. K., & Saatov, Z. Z. (2019). Diagnostic efficacy of C14 breath test in Helicobacter pyloriosis. Cardiovascular therapy and prevention, 18(S1), 85-86.

19. Kurbanovna, A. U. (2022). Retrospective analysis of gastritis associated with chronic atrophic H. pylori in patients with nocardial gastric cancer in bukhara city and prevention of atrophic processes of gastric mucosa. Interdisciplinary Approaches to Medicine, 3(2), 10-13.

20. Abdullayeva, U. K., & Shadmanov, M. A. (2022). A new approach to the treatment of ulcerative colitis. Art of Medicine. International Medical Scientific Journal, 2(1).

21. Abdullayeva, U. K., & Shadmanov, M. A. (2022). NEW ASPECTS OF THE DIAGNOSIS OF ULCERATIVE COLITIS. British Medical Journal, 2(1).

22. Abdullayeva, U. K. (2022). Results of morphological and endoscopic examination in chronic gastritis. Journal of theoretical and clinical medicine, (3), 46-49.

23. Abdullayeva, U. K., & Rakhimova, M. B. (2022). Clinical-anamnestic features of patients with H. pylori-assoculated chronic gastritis in the Bukhara Region.

24. Abdullaeva, U. K. (2021). Predicting the risk of atrophic transfusion in gastritis with chronic chelicobacter. Tashkent. Abstract of PhD dissertation, 1-46.

25. Abdullaeva, U. K. (2020). Opportunities to prevent atrophic changes in the gastric mucosa in the Bukhara region. Journal bulletin of the doctor, 1(31), 7-11.

26. Abdullayeva, U. K., & Mirzayeva, D. B. (2019). Regional perspectives of metabolic therapy of stable angina pectoris. Kazakstan Republican scientific journal “Vestnik, 1(85), 74-75.

27. Abdullayeva, U. K., & Zhalolova, V. Z. (2016). To study the effectiveness of cholelitolytic therapy in patients with gallstone disease, taking into account the type of violation of the contractility of the gallbladder. Bulletin of the Council of Young Scientists and Specialists of the Chelyabinsk region, (4), 15.

28. Karimov, M. M., Sobirova, G. N., & Abdullayeva, U. K. (2019). Chronic gastritis and issues of carcinogenesis. Bulletin of the Pancreatologists Club, (4), 65-70.

29. Sobirova, G. N., Abdullayeva, U. K., Mirzayeva, D. B., & Boboeva, R. R. (2019). Modern ideas about the immunopathogenesis of chronic gastritis and its significance in carcinogenesis. Journal of theoretical and clinical medicine, (4), 42-46.

30. Karimov, M. M., Rustamova, S. T., Ismailova, Z. H., Abdullayeva, U. K., & Saatov, Z. Z. (2019). Diagnostic effectiveness of the C14 breath test in helicobacteriosis. Cardiovascular therapy and prevention, 18(S1), 85-86.

31. Abdullaeva, U. K., & Mirzaeva, D. B. (2019). Regional prospects for metabolic therapy for stable senocardia Summary. Bulletin of the South Kazakhstan Medical Academyю, 74-76.

32. Abdullaeva, U. K., & Jalolova, V. Z. (2016). Study of the effectiveness of cholelitholytic therapy in patients with cholelithiasis, taking into account the type of violation of the contractility of the gallbladder. Bulletin of the Council of Young Scientists and Specialists of the Chelyabinsk Region, 5(4), 15.

33. Orziev, Z. M., Abdullayeva, U. K., & Nurkhanova, N. O. (2015). To study the effectiveness of cholelitolytic therapy in patients with gallstone disease, taking into account the type of violation of the contractility of the gallbladder. Eruditio Juvenium, (4), 40-44.

34. Abdullayeva U.K., Shodieva S.A. (2022) A modern view on the treatment of ulcerative colitis. International Journal of Early Childhood Special Education. 2022, Vol. 14 Issue 6, p1517-1520. 4p.

35. Karimov M.M., Sobirova G.N., Abdullaeva U.K., Aslonova IZ., Tulyaganova F.M. (2020). Serological Diagnostics Of Atrophy Of The Gastric Mucosa. The American Journal of Medical Sciences and Pharmaceutical Research, 2(12), 118–124.