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STUDY OF THE EFFICIENCY OF APPLICATION OF LACTIMAC FORTE IN COMPLEX TREATMENT OF PATIENTS WITH HIV INFECTION AND DISORDERS OF THE MICROBIAL LANDSCAPE OF THE INTESTINAL ИЗУЧЕНИЕ ЭФФЕКТИВНОСТИ ПРИМЕНЕНИЯ ЛАКТИМАК ФОРТЭ В КОМПЛЕКСНОМ ЛЕЧЕНИИ ПАЦИЕНТОВ С ВИЧ-ИНФЕКЦИЕЙ И НАРУШЕНИЯМИ МИКРОБНОГО ПЕЙЗАЖА КИШЕЧНИКА

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**Abstract.** The article presents the results of studying the effectiveness of the use of the drug Laktimak Forte in the complex treatment of HIV infection. Shown the beneficial effect of the drug on the reduction and severity of diarrheal syndrome, normalization of scatological parameters.

Key words: HIV infection, diarrhea, Laktimak Forte

#### Introduction

The HIV pandemic occupies a special place among the health problems of Ukraine, which is due to significant socio-economic losses, the lack of reliable specific prophylaxis and significant treatment costs [1,3].

In the pathogenesis of HIV infection, an important place is occupied by the violation of the normal intestinal microflora. Their development is based on changes in habitat conditions in the biotope, as a result of which the population of one of the several species that make up the microbiocenosis gains an advantage for growth and reproduction over its competitors. The change in the qualitative composition and quantitative ratio of the intestinal biocenosis depends on the nature of the diet, antibacterial, hormonal [2,4], ARV therapy, the presence of secondary diseases of the digestive tract. acquiring a dominant, not typical for them position in the microbiocenosis. In this regard, it is advisable to use pre- and probiotics [5].

**Target**. To study the effectiveness of the use of the drug Laktimak Forte for the normalization of intestinal microbiocenosis disorders in HIV infection.

Materials and research methods. We examined 34 patients with HIV infection. They had a history of diarrhea for more than 1 month, not associated with the side effects of antiretroviral therapy. On admission, the patients complained of: weakness, lethargy, lack of appetite, diarrhea for more than 1 month. Two randomized groups were formed - the main and the control. Patients of the main group additionally took the drug Laktimak Forte, 1 capsule 2 times a day.

# The main text

Lactimak Forte contains a balanced combination of probiotic and prebiotic, which restores the normal intestinal microflora and strengthens the immune system.



Lactic acid (lacto- and bifido-) bacteria Lactimak Forte are part of the normal intestinal flora of humans and play an important role in ensuring colonization resistance to pathogenic factors, immunostimulatory, vitamin-forming, detoxifying and digestive functions of the body. The antimicrobial activity of lactic acid bacteria is manifested against staphylococci, Proteus, enteropathogenic Escherichia coli and fungi of the genus Candida and is associated with their ability to produce lactic acid, lactocins, hydrogen peroxide, acetic and propylene acids, lysozyme. Lactic acid bacteria lower the pH of the intestinal contents, prevent the growth and reproduction of pathogenic and opportunistic microflora. Lactobacilli are a barrier to the penetration of intestinal sensitizing substances (endotoxins, bacterial and food allergens).

Due to the content of Saccharomyces boulardii Laktimak Forte has enhanced protective and restorative ability against the normal intestinal microflora. The main mechanism of action is associated with direct antagonism (antimicrobial action), which is due to the ability of Saccharomyces boulardii to inhibit the growth of pathogenic and opportunistic microorganisms and fungi that disrupt the intestinal biocenosis, such as: Clostridium difficile, Clostridium ausococcus Candida krusei, Candida pseudotropical, Candida albicans, Salmonella typhi, Salmonella enteritidis, Escherichia coli, Shigella dysenteriae, Shigella flexneri, Klebsiella, Proteus, Vibrio cholerae, as well as Enthamoeba hystolitica, Lambliae; Enterovirus, Rotavirus.

When studying the therapeutic efficacy of Laktimak Forte, patients were included in the study in the acute period of the disease, in the presence of vivid clinical symptoms.

When assessing the effectiveness of the drug, the following criteria were taken into account: relief of the main symptoms of the gastrointestinal tract (improved appetite, recovery of diarrheal syndrome, normalization of scatological and microbiological parameters).

During a clinical examination, the patient's condition was determined with the definition of symptoms of intoxication (weakness, lethargy, irritability and fever). In the case when patients received the drug on days 2-3 from the onset of the disease, a rapid positive dynamics was observed. On the 3-4th day, stool normalization was noted. When the drug was prescribed for 4-5 days of therapy, symptoms of intoxication and pathological stools persisted.

In patients of the main group, the duration of the course of the temperature reaction was  $2.8 \pm 0.2$  days shorter than in patients of the control group.

Against the background of therapy, at an earlier date, disappearance occurred with. It should be noted that the restoration of the stool character in the gastroenteric form occurred faster than in patients with the gastroenterocolitic form of the disease. Against the background of the drug therapy, a rapid evolution of symptoms was noted, the patients became more active, at the same time, an improvement in the character of the stool and indicators of stool analysis was noted.

So, stool normalization occurred faster than patients in the main group by  $3.2\pm0.2$  days in comparison with patients in the control group. This type of therapy was most effective in patients with gastroenteric and enteric diarrhea. A reduction in the duration of the main clinical manifestations in patients of the main group contributed



to a decrease in the duration of the disease to 5.2 + 0.7 days versus 7.1 + 0.7 days in the comparison group.

#### **Conclusions**

The data obtained indicate that the drug Laktimak Forte has a beneficial effect, reducing the severity of diarrheal syndrome, and normalizing scatological parameters.

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**Анотація.** В статтье представлены результаты изучения эффективности применения в комплексном лечении ВИЧ инфекции препарата Лактимак Форте. Показано благоприятное действие препарата на снижение и выраженность диарейного синдрома, нормализацию копрологических показателей.

Ключові слова: ВИЧ инфекция, диарея, Лактимак Форте