

MANIFESTATION OF CLINICAL SYNDROMES ACCOMPANYING HIV-INFECTION WITH GIARDIA AND BLASTOCYSTOSIS

M. M. Achilova,

Uroкова Gulchiroy Mansur qizi
Samarkand State Medical University,
Republic of Uzbekistan, Samarkand city

Abstract

According to the scientific literature, the spread of human parasites in HIV-infected patients is high (10.0-30.0%), external factors, the external environment and social conditions also play a major role in the spread of human parasites. In the course of the investigation, 85 patients with intestinal parasitism (giambliosis and blastocystosis) were diagnosed with HIV-infection and clinical changes were studied. HIV-infected patients with a diagnosis of intestinal parasites (giambliosis, blastocystosis) often experience intoxication, asthenovegetative and dyspeptic syndromes, the frequency of which is 40.9% to 100.0%.

Keywords: HIV infection, intestinal parasites, giardiasis, blastocystosis.

Introduction

Globally, the prevalence of intestinal parasitosis such as giardiasis and blastocystosis among various infections is observed in people living with HIV [14,15]. Characteristic of parasitic diseases - the development of an allergic background in the body, increased immune activity, disturbance of the digestive system, development of anemia, loss of body weight, imbalance of the intestinal microflora biotope, development of various tumor diseases, urinary-genital organs activity. The development of complications such as disorders causes the deterioration of the quality of life of HIV-infected patients. Irritability, hyperactivity, and neurocognitive disorders in many HIV-infected people indicate a high probability of infection with intestinal parasites [1,3,5,9]. According to O.Ya Babak (2015) and A.G. Rakhmanova (2013), in intestinal parasitosis, temporary activation of the immune system is observed at first, but then the immune deficiency increases consistently [2,8]. According to the data of many researchers, intestinal parasitosis negatively affects the natural development of HIV infection, causing increased viral replication and deepening of immune deficiency. In addition, it is based on the fact that the pathological processes observed especially in the digestive system of the body accelerate the development of the AIDS stage with various complications, that is, the outbreak of various opportunistic diseases, including damage to the central nervous system [11,12].

The Goal

Manifestation of clinical syndromes when HIV infection is accompanied by giardiasis and blastocystosis was studied.



Material and research methods.

A total of 85 patients with HIV infection and diagnosed with giardiasis and blastocystosis registered in the Samarkand Regional AIDS Center were taken as the object of the study.

Blood, blood serum and excreta taken from the patient were considered the subject of research. General clinical, microscopic, immunological and statistical methods were used in this study. Diagnosis of "HIV infection" at the Samarkand regional AIDS control center, HIV antibodies in blood serum by the method of immunoenzymatic analysis (IFT) using the IV generation test kits, then immunoblotting (IB) reaction using the test systems of the "Vector" IChB (Novosibirsk region) based on The clinical stage of HIV infection is based on WHO's "Revised Classification of Clinical Stages of HIV Infection in Adults and Adolescents" (2012). The study included patients with laboratory-confirmed intestinal parasitosis, aged 18-69, who were in the I-clinical stage of HIV infection and who were receiving ART for 1 year. As a control group, 33 patients with only intestinal parasitosis giardiasis and blastocystosis were taken. Patients were matched for age and gender.

Statistical processing of the data was carried out using Microsoft Office Excell "Tibstatistica" program. Arithmetic mean (M), mean standard error (m), minimum, middle and maximum values were determined. Differences were considered statistically reliable when $r < 0.05$. Special attention was paid to the manifestation of clinical syndromes observed in HIV-infected patients with intestinal parasitosis.

Research Results

Asthenovegetative (general weakness, rapid fatigue), intoxication (subfebrile temperature, weakness) and dyspepsia (nausea, diarrhea) syndromes were observed in all patients when HIV infection was accompanied by intestinal parasites. Asthenovegetative syndrome was recorded 2.3 times more often in HIV-infected patients diagnosed with intestinal parasitosis than in patients without HIV infection diagnosed with intestinal parasitosis.

Fever is one of the most common clinical symptoms in HIV-infected patients diagnosed with giardiasis and blastocystosis, observed in 84.8% of patients with giardiasis and 91.0% of patients with blastocystosis. In HIV-infected patients with blastocystosis, an increase in body temperature was noted 3.8 times more ($p < 0.001$) than in the control group (22.2%).

Dyspepsia syndrome was observed in all 85 HIV-infected patients diagnosed with intestinal parasitosis (giardiasis, blastocystosis), and this syndrome was detected 1.6 times more frequently than in the control group ($p < 0.001$). Abdominal pain syndrome (epigastric and/or umbilical pain) was observed in 49 (58.2%) HIV-infected patients with intestinal parasites, 1.3 times ($p < 0.01$) more than in the control group. 'p was determined ($p < 0.01$). Toxic-allergic syndrome (itching of the skin, formation of various rashes, dermatitis with an allergic appearance) in 45 (53.5%) patients in the main groups and 2.9 times more ($p < 0.01$) than in the control group was observed ($p < 0.01$). Abdominal rest was observed only in 41 (47.6%) HIV-infected patients with giardiasis, and no statistical difference was detected compared to the control group ($p > 0.05$). The occurrence of clinical syndromes in HIV-infected patients diagnosed with intestinal parasitosis and in control groups is presented in Table 1.



Table 1 The incidence of clinical syndromes in the main study and control groups

Syndrome type	HIV-infected patients with giardiasis and blastocystosis (85 patients)	HIV-infected patients with giardiasis and blastocystosis (control group) (33 patients)
Asthenovegetativesyndrome	85 (100%)	14 (42,4%)
Intoxication syndrome	85 (100%)	12 (36,4%)
Dyspepsia syndrome	85 (100%)	20 (60,6%)
Abdominal pain syndrome	49 (58,2%)	15 (45,5%)
Toxic-allergic syndrome	45 (53,5%)	6 (18,2%)
Stomach rest	41 (47,6%)	10 (30,3%)

In the main research groups, asthenovegetative syndrome was observed in almost all patients (79.2% and 100.0%) and was detected several times more often than in the control group. Toxic-allergic syndrome occurred in 13.6% to 20.8% of patients diagnosed with giardiasis in the main group, but there was no statistical difference ($R > 0.05$), this syndrome was not observed in the control group. (Table 2).

Table 2 The incidence of clinical syndromes in the main groups with giardiasis and the control group

Type of syndrome	Group 1 (24 patients)	Group 2 (control) (18 patients)
Asthenovegetativesyndrome	24(100%)	2 (11,1%)
Intoxication syndrome	24 (100%)	4 (22,2%)
Dyspepsia syndrome	24 (100%)	9 (50,0%)
Abdominal pain syndrome	23 (95,8%)	4 (22,2%)
Toxic-allergic syndrome	4 (16,7%)	0%
Stomach rest	24 (100%)	10 (55,5%)

Abdominal pain syndrome was statistically significantly higher in the main group and in the control group ($p < 0.05$ and $p < 0.01$). Abdominal rest was more observed in HIV-infected patients diagnosed with giardiasis and control group compared to patients diagnosed with giardiasis ($R < 0.001$). Intoxication was observed in 95.8% of cases in the control group where intestinal parasites were detected. In the main group with blastocystosis, there was a difference in the occurrence of clinical syndromes compared to patients with giardiasis. Asthenovegetative syndrome was observed in almost all HIV-infected patients in whom intestinal parasitosis was detected and was detected from 83.3% to 100.0%. In the control group, this rate was 7.2 times higher (80.0%) in non-HIV-infected patients diagnosed with giardiasis (80.0%) (Table 3).



Table 3 The incidence of clinical syndromes in the main groups with blastocystosis and the control group

Syndrome type	Group 1 (n=21)	Group 2 (n=15)
Asthenovegetativesyndrome	21 (100%)	12 (80,0%)
Intoxication syndrome	20 (95,2%)	8 (53,3%)
Dyspepsia syndrome	21 (100%)	11 (73,3%)
Abdominal pain syndrome	10 (47,6%)	11 (73,3%)
Toxic-allergic syndrome	21 (100%)	6 (40,0%)
Stomach rest	0%	0%

Toxic-allergic syndrome in blastocystitis was several times higher in the main groups compared to the control group than in patients with giardiasis. This indicator was 40.0% in the control group in patients diagnosed with blastocystosis. Dyspepsia syndrome was observed in all patients diagnosed with blastocystosis in groups 1 and 3 and in most patients in groups 2 and 4 (78.9% and 83.3%). Dyspepsia syndrome was observed in groups 1 and 3 with a higher rate than in groups 2 and 4, and blastocystosis was observed more often in patients of all main groups than in the control group ($p < 0.05$ and $p < 0.01$). Abdominal pain syndrome was less frequent compared to giardiasis in all main study groups (27.8%, 65.0% and 27.3%, 95.8%, $p < 0.05$ and $p < 0.05$, respectively). There was no difference between the first three groups and group 6 ($R > 0.05$), and in group 4 this clinical syndrome was observed less than in group 6 ($R < 0.01$). Abdominal relaxation was not observed in patients diagnosed with blastocystosis. Intoxication syndrome was observed in patients diagnosed with blastocystosis almost the same as in patients diagnosed with giardiasis and was higher compared to the rate determined in group 6.

Summary

In HIV-infected patients diagnosed with intestinal parasitosis (giardiasis, blastocystosis), intoxication, asthenovegetative and dyspepsia syndromes are often observed, the frequency of which is from 40.9% to 100.0%. The frequency of toxic-allergic syndrome was high in patients diagnosed with blastocystosis and was 94.4%-100.0%, abdominal pain syndrome was observed mainly in patients diagnosed with giardiasis, and abdominal rest was found only in patients diagnosed with giardiasis.

REFERENCES

1. Аракелян Р. С., Окунская Е. И., Сергеева Н. А. Лямблиоз как причина поражения желудочно-кишечного тракта у детей-дошкольников // Вестник ВолгГМУ, Выпуск 3 (75). 2020. – С. 123-126.
2. Бабак О. Я. Роль и место тканевых паразитов в патологии человека // Здоровье Украины. – Россия, 2015. – № 8. – С. 60-65.



3. Байжанов А. К., Ачилова М. М., Ярмухамедова Н. А. Влияние лямблиоза кишечника на гепатобилиарную систему у больных ВИЧ-инфекцией // НАУКА И ОБРАЗОВАНИЕ В СОВРЕМЕННОМ ОБЩЕСТВЕ: АКТУАЛЬНЫЕ ВОПРОСЫ И ИННОВАЦИОННЫЕ ИССЛЕДОВАНИЯ. – 2021. – С. 129-131.
4. Бегайдарова Р.Х., Насакаева Г.Е., Кузгибекова А.П. Клинико-эпидемиологическая характеристика лямблиоза // Международный журнал экспериментального образования. – М., 2013. - Т. 21, - № 24. - С. 1161-1165.
5. Канестри В. Г., Кравченко А. В., Куимова У. А. Клинически выраженные нежелательные явления у больных ВИЧ-инфекцией, получающих антиретровирусную терапию // Инфекционные болезни. – М., 2017. –Т. 15, - № 5. – С. 120.
6. Mirkhamzaevna A. M., Yakubovna E. M., Shakhobidinovna V. N. Safety Assessment of Highly Active Antiretroviral Therapy in Patients with HIV Infection // EUROPEAN JOURNAL OF INNOVATION IN NONFORMAL EDUCATION. – 2022. – Т. 2. – №. 1. – С. 289-292.
7. Покровский В. В. ВИЧ-инфекция и СПИД. Клинические рекомендации / 4-е изд., перераб. и доп. - М.: ГЕОТАР-Медиа, 2020. - 156 с.
8. Рахманова А. Г. ВИЧ-инфекция и иммуносупрессии / ВИЧ-инфекция. – М., 2013. – Т. 5, - № 4. – С. 51-56.
9. Сигидаев А. С. Клинико-лабораторная характеристика бластотсистной инвазии у больных ХСВ-инфекцией: автореф. дис. ... канд.мед.наук: 14.00.11. - Санкт-Петербург, 2012. - 17 с.
10. Соринсон С. Н., Орзикулов А. О. Несбалансированное белковое питание как фактор,отягощающий течение и исходы вирусного гепатита В //Сб. тр.«Здоровье человека и экологические проблемы».—Кировская НПК. – 1991. – С. 122-123.
11. Токмалаев А. К., Кожевникова Г. М. Клиническая паразитология – протозоозы и гельминтозы: учебное пособие. – 2-е изд. Перераб. и доп. - М.: МИА, 2017. - 385 с.
12. Шкарин В. В., Благонравова А. С., Чубукова О. А. Особенности эпидемиологии гельминтозов как сочетанной патологии // Инфекционные болезни: новости, мнение, обучение. – Россия, 2017. - № 3. - С. 123-130.
13. Яковлев А. А., Рахманова А. Г., Трофимов Т. Н. Токсоплазмоз сНС у ВИЧ-инфицированного пациента на фоне высокоактивной антивирусной терапии // Радиология. Практика. –Россия, 2015. - № 1. - С. 27-31.
14. Якубова Н. С., Джураева К. С. Изменения нервной системы при вич инфекции //Uzbekjournalofcasereports. – 2023. – Т. 3. – №. 3. – С. 97-100.
15. Vayjanov A. K. et al. OIV infeksiyalibemorlardaichakparazitozlariningtarqalganligivablastotsistalarnigenotiplashnatijalari //Ўзбекистон Республикаси Санитария-эпидемиология ва жамоат саломатлиги хизмати журнали. – 2023. – Т. 3. – №. 3-4.
16. Kadirovich B. A. et al. RELATIONSHIP OF INCIDENCE OF INTESTINAL PARASITOSIS WITH THE LEVEL OF IMMUNODEFICIENCY IN PATIENTS WITH HIV INFECTION //Asian journal of pharmaceutical and biological research. – 2023. – Т. 12. – №. 2.



17. Nsagha D., Njunda A., Assob N. Intestinal parasitic infections in relation to CD4+ Tcell counts and diarrhea in HIV/AIDS patients with or without antiretroviral therapy in Cameroon. BMC Infectious Diseases. - 2016; 16(9): - P. 1-10.
18. Shimelis T., TassachewYa., Lambiyo T. Cryptosporidium and other intestinal parasitic infections among HIV patients in southern Ethiopia: significance of improved HIV-related care. Parasit Vectors. - 2016;9. - R. 270-277.
19. Yarmukhamedova M. Q., Yakubova N. S., Juraeva K. S. Main modern aspects of neurobrucellosis according to the materials of the regional infectious clinical hospital of Samarkand city //Science and Education. – 2023. – Т. 4. – №. 2. – С. 509-515.
20. Yarmuhamedova N. A. et al. Clinical and epidemiological aspects of neurobrucellosis according to the information of samarkand municipal infectious diseases hospital //Інфекційніхвороби. – 2020. – №. 3. – С. 60-65.