



containing highly active enzymes of plant and animal origin (Wobenzym) possessing anti-inflammatory, antioxidant, immune modulating and resolving action.

Administration of the multiprobiotic Symbiter acidophilic and systemic polyenzymatic drug Wobenzym in a comprehensive treatment of psoriasis was found to promote normalization or a tendency to normalization of the colon microbiota indices. It was manifested by decreased signs of dysbiosis, accelerated regression of the elements of skin rash with a reliable decrease of PASI among the patients from the main group at the end of treatment compared with its initial value by 74,9% (among patients from the comparative group – by 51,6%). Observation of patients with psoriasis during a year determined a longer period of clinical remission and decreased frequency of dermatosis relapses (1,73 times, in patients from the comparative group – 1,24 times; $p < 0,001$).

Therefore, administration of the multiprobiotic Symbiter acidophilic and systemic polyenzymatic drug Wobenzym in a comprehensive treatment of psoriasis with dysbiosis signs promotes normalization or a tendency to normalization of the colon microbiota indices of patients, and improves clinical results of treatment: accelerates regression of the elements of skin rash, continues the state of clinical remission and decreases relapse frequency during observation of patients for a year.

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CARDIOVASCULAR COMPLICATIONS ACCORDING TO ECHOCARDIOGRAPHY AMONG ASYMPTOMATIC HIV-INFECTED PATIENTS

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Before the availability of antiretroviral therapy (ART), cardiovascular diseases were commonly found in adult HIV-infected patients with advanced HIV disease. However, nowadays the involvement of the heart in the pathological process in HIV-positive patients is relatively widespread and is associated with an increase mortality rate despite the existence of ART. Therefore, it is important to find simple prognostic features for early detecting cardiovascular disease in HIV-infected patients. Echocardiography, a noninvasive technique, contributes to the diagnosis of cardiac lesions in asymptomatic HIV-positive subjects.

Objectives – to investigate the structural changes of heart muscle in patients with HIV by comparing different prospective observational echocardiographic studies.

The results of our studies show almost the same percentage of cardiovascular damage in the examined HIV-infected patients. Partially different results of the research can be explained by the different ages of the studied populations, mean CD4 count, immunosuppression level, criteria for selecting patients, including the inclusion/exclusion of patients who received antiretroviral therapy. According to the investigation of Indian scientists, 35.7% patients had some abnormal 2D echofindings which was associated with low CD4 count.

Among the echocardiographic findings 23.2% patients had low left ventricular ejection fraction (LVEF). By another Indian's scientists, echocardiographic abnormalities were noted in 42.3% patients. Most common abnormalities found was reduction in fractional shortening – 34.6%. These echocardiographic findings were associated with clinically apparent opportunistic infections and also low CD4 cell count. At the same time SUN study shows: 20% decreased LVEF. 34,3% of participants had LVEF reduction in HIV-HEART study.

Echocardiographic abnormalities were found in 78% of the cases in Nigeria. Of the 100 cases studied, 30% had systolic dysfunction. At the same time in a study led by Eric A. Secemsky left ventricular systolic dysfunction was rare in this cohort – only 5%. According to the investigation of first Indian scientist, 26.4% patients had diastolic dysfunction (DD), which is similar as the findings of an American's scientist. In a Study done by Pravesh Aggarwal et al. on 52 AIDS patients 19.2% had left ventricular DD. 32% patients from Nigerians study had DD. Among HIV-infected patients of Secemsky's study, 45% had DD.



Study by Rupal showed that 15.9% of patients had pulmonary artery hypertension (PAH). It also had a significant correlation between low CD4. But Kristin Mondy from Washington university School of medicine said about 57% of this abnormalities. Factors significantly associated with PAH were current use of a ritonavir-boosted protease inhibitor. PAH also was present in 27% of HIV-infected patients of American's study led by Eric A. Secemsky.

Various causative factors involved in the development of pericardial disease have been described. Tuberculosis is the commonest cause of pericardial disease. 11.9% patients from first investigation had pericardial effusion. Pravesh Aggarwal et al had a prevalence of tuberculosis 63.5% and incidence of 11.5% in there study. In Nigerian study pericardial involvement was also common in the cases. Of the 100 cases, 47% had pericardial effusion. No definitive cause was determined for any pericardial effusion in this study.

Thus, the results of our study have demonstrated that in asymptomatic HIV-positive subjects a significant impairment of systolic and diastolic function may be detected by echocardiographic examination, confirming an early involvement of the heart in HIV disease. Echocardiographic abnormalities increases as the CD4 count falls.

Thus our aim should be to start ART in these patients as soon as possible so as to improve the morbidity and quality of life of people living with HIV infection. In view of the high frequency of cardiac abnormalities detected by echocardiography in the HIV infected patients in our study, it is suggested that HIV-positive patients should have a careful initial and periodic cardiac evaluation to detect early involvement of the heart in the HIV disease using standardized echocardiographic examination.

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MORPHOLOGICAL CHANGES IN HEPATOCYTES IN PATIENTS WITH PULMONARY TUBERCULOSIS

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Tuberculosis and liver disease are related in many ways. Liver disease can occur due to hepatic tuberculosis or the treatment with various anti-tubercular drugs may cause hepatic injury or patients with chronic liver disease may develop tuberculosis and create special management problems.

We have conducted a prospective pathomorphological study of 60 deaths of patients diagnosed with a sensitive (the first group), poly-resistant (the second group) and multidrug-resistant tuberculosis (the third group).

The analysis of the findings showed a linear growth in coefficient of variation of the optical density of the nuclei staining in all the experimental groups from I to III acinus zones, by increasing the homogeneity of the nucleus colour of the first zone hepatocytes, indicating the increased activity of their nuclei and DNA involvement to synthetic processes. In the third acinus zone the coefficient of variation of the optical density of the nucleus staining in all the groups was higher compared to the first and second zone, indicating a heterogeneous organization of chromatin.

When analyzing the findings, we established that in pulmonary tuberculosis the coefficient of variation of the optical density of hepatocytes nuclear chromatin in the first, second and the third acinus zones is significantly higher, depending on the resistance profile. In the second and third groups the average coefficient of variation of the optical density of nuclear chromatin was significantly higher by 1.51 and 1.96 times respectively compared to the first group and it is indicative of an imbalance between eu- and heterochromatin due to increase in the content of the latter, indicating a decrease in activity of the cell nucleus to involve DNA to synthetic processes and it is a substrate for the development of hepatocellular dysfunction.