Results: During the acute phase of EBO infection, Patients with EVD generally have abrupt onset of fever and symptoms typically 8 to12 days after exposure (incubation period for current outbreak has a mean of approximately 9 to 11 days). Initial signs and symptoms are nonspecific and may include elevated body temperature or subjective fever, chills, myalgia, and malaise several ocular manifestations have been observed in 70%. Patients can progress from the initial nonspecific symptoms after about 5 days to develop gastrointestinal symptoms such as severe watery diarrhea, nausea, vomiting, and abdominal pain. A conjunctivalinjection, a relatively early sign of EHF epidemics. Bilateral conjunctivitis during the acute phase of the epidemic was highly predictive for the diagnosis of an EBO infection; sub conjunctivalhemorrhages have also been reported and certain patients with EHF complained of blurred vision or blindness during the acute phase of their illness. The etiology of these ocular manifestations remains unclear because ophthalmologic examinations, were considered potentially risky procedures for health care workers as they may be infected by contact with an infectious person. EBO is typically a zoonosis and outbreaks with human-to-human transmission periodically occur. The severity of this disease with its high fatality rate and its awful hemorrhagic symptoms has been largely emphasized by mass media. The risk for EVD among ophthalmologists from Western countries is, therefore, minimal. However, it is not impossible that mild, asymptomatic, and convalescent EVD patients may seek ophthalmologic care. Proper anamnesis and physical examination are enough to distinguish between false alarms and potential Ebola virus carriers and, in the latter case, preventive measures are effective in minimizing the risk of transmission.

Conclusion: We hope that the published data on metastases to the skin and data from our own practice will be interesting and useful to students and teachers of medical schools and doctors of various fields.

Yurko K.V., Adeyemi A.A.

FEATURES OF DISORDERS OF MINERAL METABOLISM IN PATIENTS CO-INFECTED WITH HIV/HCV

Kharkiv National Medical University, Kharkiv, Ukraine
Department of infectious diseases

Introduction. HCV-infection and HIV are the two most serious and common viral diseases that are widespread and are characterized by the defeat of the working population. Co-infection with HIV/HCV is an important public health problem, since viruses, acting synergistically accelerate the progression of hepatitis C virus-induced liver disease. Trace elements have a significant impact on the metabolic processes in the body and have a close relationship with the enzymes, hormones, vitamins and other biologically active compounds. The content of trace elements in the blood is a valuable diagnostic feature in many pathological conditions. Insufficient knowledge of their content in patients co-infected with HIV/HCV proves the feasibility of studying their role in the pathogenesis of this disease.

Materials and methods. Our scientific work was carried out at the Department of Infectious Diseases Kharkiv National Medical University located at the Regional Clinical Hospital of Infectious Diseases of Kharkiv and Kharkiv regional center for prevention and control of AIDS. The content of trace elements (copper (Cu), iron (Fe) and zinc (Zn)) in

serum were determined by atomic absorption spectrophotometry in the central research laboratory Kharkiv National Medical University. A total of 99 patients were examined: chronic hepatitis C (CHC) – 32, HIV - 34 and co-infection with HIV/HCV - 33 patients. The age of patients ranged from 20 to 52 years old. The comparison group consisted of 32 healthy subjects. Blood samples were taken for the study after signing the informed consent of the patients.

Results. Comprehensive assessment of the degree of deviation from the control indices of the content of trace elements and proteins of the acute phase, depending on the type of disease. These charts indicate that the highest significance of deviations from the control group is characteristic of patients co-infected with HIV/HCV ($t = 10,3$; $p<0.001$). In general microelement disorder phenomenon occur in most patients co-infected with HIV/HCV, and to a lesser degree in CHC patients. From this it follows that HCV-infection potentiates microelement disorder manifestations in patients with HIV infection.

Conclusions. 1. Patients with CHC when compared to the control group, showed a reduction in the content of Zn, haptoglobin, increase Cu, Fe and ceruloplasmin. 2. In patients with HIV infection and co-infection with HIV/HCV a reduction of these trace elements and acute phase proteins was established. 3. In patients co-infected with HIV/HCV when compared with HIV infection only revealed a lower level of Zn ($p<0.001$), and lower content of ceruloplasmin and haptoglobin. Patients co-infected with HIV/HCV, compared with a group of chronic hepatitis C have lower values for all parameters ($p<0.001$). 4. Comprehensive assessment of the degree of deviation from the control indices of the content of trace elements and activity of metal dependent acute phase proteins showed that it was typical for patients co-infected with HIV/HCV, and also higher than that of HIV-infected patients with a factor of 1.2 and 2.2 times greater than levels in CHC patients.