

BARTONELLOSIS: EPIDEMIOLOGY ASPECTS AMONG HIV-INFECTED

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Within the framework of epidemiological supervision on HIV-infected persons the detection of mixed infections cases happens: testing on the presence of markers of HBV and HCV, Mycobacterium, Toxoplasma and other causative agents of opportunistic infections. However having regard to prevalence of bartonellosis among persons with HIV/AIDS monitoring of this dangerous infection is not conducted.

Aim. Screening of HIV-infected persons on specific anti-Bartonella antibodies in comparison with epidemiological data and the presence of opportunistic infections.

Results. Patients with HIV infection, which participated in research, are possible to be considered as a typical for the noted period "profile" of society with specific behavioural, epidemiology, clinical and psychological features, characteristic for the stage of generalized epidemic of HIV infection in Ukraine. Statistical procedures were executed with the use of package of the applied software Statistica v 6.0 (StatSoft).

176 HIV-infected persons were examined, among them: men – 56,3 %, women – 43,8 %. Average age of the examined persons – 33,0 ± 0,5. Ist clinical stage of HIV infection was diagnosed among 10 persons, II – among 15, III – among 100 and IV – among 51. Intravenous drug addiction was ascertained of 31.8 % examined persons. Infecting with tuberculosis is diagnosed among 25,6 %, toxoplasmosis – 25,0 %, HBV – 16,5 %, HCV – 41,5 %.

34,7% of HIV-infected gave a positive reaction with Bartonella antigen in Indirect Fluorescent Antibody Assay, that correlates with the results of foreign researches, concordantly to which at testing of HIV-infected seropositive patients in relation to the dominant causative agent of bartonellosis *B. henselae* varied from 17,3 % to 41 %. The portion of seropositive persons to bartonellosis significantly increased with progression of HIV infection and presented: at Ist stage – 10 %, II – 20 %, III – 32 % and at IV – 49 %. The exposure of specific anti-Bartonella antibodies almost in every third HIV-infected proves considerable distribution of bartonellosis among this group of population and active character of epidemic process. Infecting is found in all age categories regardless of sex ($p > 0.05$).

On the basis of analysis of the epidemiological data in a group of HIV-infected patients founded that among the intravenous drug users (IDU) anti-Bartonella antibodies more frequent (44,3 %) than in the group of persons which do not consume drugs (only 25,2 %). Taking into account protracted endoglobular persistence of Bartonella and its ability to cause chronic bacteraemia, and also direct connection is found between intravenous drug addiction and infecting of Bartonella ($\chi^2 = 6.66$, $p = 0.01$; $r = 0.19$, $p = 0.01$) put forward hypotheses about possibility of hemocontact rout of transmission of bartonellosis. Additionally, we found connection between presence of HCV-infection and bartonellosis ($\chi^2 = 4.64$, $p = 0.03$; $r = 0.16$, $p = 0.03$), in default of statistically reliable connection between HBV-infection and bartonellosis ($\chi^2 = 2.84$, $p > 0.05$; $r = 0.12$, $p > 0.05$). Analysis of results of testing markers of HBV and HCV it was educed among respondents of this research that totally markers of HBV and HCV more frequent found among IDU, than among sexually transmitted patients.

It is known that behavioural and immunological characteristics associated with the use of drugs assist the increase of prevalence of pathogens which does not have a hemocontact rout of infecting, as for

example *Mycobacterium tuberculosis*. However, for investigated persons reliable connection is not found between infecting of *Mycobacterium* and *Bartonella* ($\chi^2 = 2.56$, $p > 0.05$; $r = 0.12$, $p > 0.05$). Direct connection between infecting of *Toxoplasma* and *Bartonella* ($\chi^2 = 4.42$, $p = 0.04$; $r = 0.16$, $p = 0.04$) is explained by high prevalence of *B. henselae* among cats. For certain, different factors assist the transmission of *Bartonella*: housing terms with high authenticity of close contact with cats, homeless dogs, rats *Rattus rattus* and *R. norvegicus* (what are the reservoirs of *Bartonella*) and their ectoparasites (fleas, lice, ticks).

Conclusion. HIV-infected patients with bartonellosis are an epidemiological cohort that constitutes the massive reservoir of *Bartonella* in general population. The basic subpopulations involved in epidemic process are IDU, HCV- and *Toxoplasma* infected persons.

ЕФЕКТИВНІСТЬ ПРЕПАРАТУ РИБОНУКЛЕЇНОВОЇ КИСЛОТИ В КОМПЛЕКСНОМУ ЛІКУВАННІ ХВОРИХ НА ХРОНІЧНИЙ ГЕПАТИТ С

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Україна належить до регіонів, де ураженість населення вірусом гепатиту С (ВГС) становить 3 %. Спостерігається постійне зростання рівня захворюваності на гепатит С (ГС). Багаторічна персистенція вірусу при хронічному ГС (ХГС), в більшості випадків є домінуючою у прогресуванні фіброзу печінки з формуванням цирозу та розвитку гепатоцелюлярної карциноми.