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INTERLEUKIN-7 HIV TRANSMISSION TO CERVICO-VAGINAL TISSUE EX VIVO

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Abstract: The majority of HIV-1 infections in women transmit through vaginal intercourse, in which virus-containing semen is deposited on the cervico-vaginal mucosa. Semen is more than a mere carrier of HIV-1, since it contains many biological factors, in particular cytokines, that may affect HIV-1 transmission. The concentration of interleukin (IL)-7, one of the most prominent cytokines in semen of healthy individuals, is further increased in semen of HIV-1-infected men. Here, we investigated the potential role of IL-7 in HIV-1 vaginal transmission in an ex vivo system of human cervico-vaginal tissue. We simulated an in vivo situation by depositing HIV-1 on cervico-vaginal tissue in combination with IL-7 at concentrations comparable with those measured in semen of HIV-1-infected individuals. We found that IL-7 significantly enhanced virus replication in ex vivo infected cervico-vaginal tissue. Similarly, we observed an enhancement of HIV-1 replication in lymphoid tissue explants. Analysis of T cells isolated from infected tissues showed that IL-7 reduced CD4+ T cell depletion preventing apoptosis, as shown by the decrease in the number of cells expressing the apoptotic marker APO2.7 and the increase in the expression of the anti-apoptotic protein B-cell lymphoma (Bcl)-2. Also, IL-7 increased the fraction of cycling CD4+ T cells, as evidenced by staining for the nuclear factor Ki-67. High levels of seminal IL-7 in vivo may be relevant to the survival of the founder pool of HIV-1-infected cells in the cervico-vaginal mucosa at the initial stage of infection, promoting local expansion and dissemination of HIV infection.

Key words: HIV, lymphocytes, interleukins, tissues, infection

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DYNAMICS OF SPECIFIC IGM AND IGG ANTIBODIES IN PATIENTS WITH CRIMEAN-CONGO HEMORRHAGIC FEVER (CCHF)

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Abstract: 338 blood sera from 254 CCHF patients residing in the south endemical areas of the Russian Federation during 2003–2010 were examined with the use of ELISA-IgM (MAC-ELISA) and ELISA-IgG methods. The dynamics of specific antibodies for a month from the beginning of the disease including patients with different clinical forms of CCHF, cases of different ages, males and females has been investigated.

Key words: Congo hemorrhagic fever, serological diagnosis, ELISA-IgM, ELISA-IgG, dynamics of the specific antibodies
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OPTIMIZATION OF TACTICS OF MANAGEMENT OF PATIENTS WITH CHRONIC HEPATITIS C

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Abstract: The prognostic significance of characteristics of patients (gender, age, infectious dose, the presence of habitual intoxication) and of the virus (replicative activity, genotype, viral load, viral kinetics) in the natural course of HCV infection and the probability of achieving sustained virologic response (SVR) as a result of antiviral therapy (AVT) were studied. The natural course of chronic hepatitis C (CHC) infection in 100 patients and the effectiveness of AVT in 68 CHC patients have been analyzed. The factors that determine the unfavorable course of CHC (male gender, age at the moment of infection older than 30 years, infection through a hemotransfusion or drug use, the presence of habitual intoxications, virus 3a genotype, and the presence of a/HCV NS3 and a/HCV NS5). The factors that determine a high probability of achieving SVR are detected. In this case the treatment by AVT, regardless of the prognosis of the natural course of HCV is recommended

Key words: hepatitis C, predictors of progression, tactics of the management

EB-1302-028

PSYCHOLOGICAL PREDICTORS OF ANXIOGENIC STRESS AND THEIR INTERRELATIONSHIP WITH PROGRESSION OF VIRAL HEPATITIDES

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Abstract: Personality traits of patients with pathology of hepatobiliary system (acute and chronic viral hepatitides, liver cirrhosis), their interrelationship with psychoemotional status (the state of personal and situational anxiety), formation of anxiogenic stress and the state of biomembranes have been studied. A conjugacy of a set of personality traits of patients with viral hepatitidis with increasing of personal and situational anxiety and formation of stress-induced disorder of the structural and functional state of biomembranes has been shown, that may be the base of the negative progression of viral hepatitides with forming cirrhosis of the liver. There is made a conclusion about worthwhileness of supplement the standard for diagnosis and treatment of patients suffered from viral hepatitides with psychometric methods, psychocorrective measures and preparations with antioxidant and membrane protection action.

Key words: viral hepatitis, cirrhosis, psychological status, stress, membrane, free radical oxidation

EB-1302-033

CHRONIC HCV – INFECTION IN THE KIROV REGION: DYNAMICS OF INDICES OF DISEASE IN ADULTS IN 1995–2010

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Abstract: In the given article the analysis of an epidemiological situation concerning chronic forms of HCV infections in adults in the Kirov region in 1995-2010 is presented. In the region during analyzed period stable trend to the elevation of incidence of chronic hepatitis C and a slight decrease in the number of "carriers" of HCV on the background of steadily low indices of the occurrence of acute hepatitis C have been fixed. There
are also presented the results of genotyping of HCV-virus in 730 patients with chronic hepatitis C treated at the Kirov Region infectious hospital and polyclinics in Kirov with the dominance of HCV subtypes 1b and 3a.

**Key words:** chronic hepatitis C, HCV-virus genotypes

**EB-1302-037**

**METHOD OF FORECASTING THE PROBABILITY OF PROGRESSION OF THE CLINICAL STAGE OF HIV INFECTION**

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**Abstract:** The method of forecasting the probability of progressing of clinical stage of HIV-infection has been developed. The method includes bacteriological examination of mucosal membrane scrapings from the posterior wall of oropharynx in HIV-infected patients without clinical signs of disease of the pharynx, and the counting of fungi of the Genus Candida. In identifying the fungi of the genus Candida in the number of colony-forming units equal to or more than 103, the high probability which is 0.95 (forecasting of the positive result) of transition of the clinical stage of HIV infection within the next 6 months into following clinical stage of the disease is stated.

**Key words:** IHV-infection, immunodeficiency, clinical stage, forecast of progressing.

**EB-1302-040**

**DISEASES CAUSED BY ARTHROPODS -MOTH LARVA IN CLITORIS, TUNGIASIS, CUTANEOUS AND INTESTINAL MYIASIS IN RUSSIAN TRAVELERS: REPORT OF EIGHT CASES AND REVIEW THE LITERATURE**

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**Abstract:** Diseases caused by several species of arthropods are rare diseases in Europe. Very few cases of these diseases have been reported in the literature. It is widespread in the tropics and subtropics of Africa and the Americas, and occurs with significantly less frequency in most other areas of the world. They are defined by the development of parasitic, mostly tropical maggots and sand fleas in the human body. The infestation of body tissues by the larvae of flies, sand fleas and moth caterpillars, occurs infrequently in Russian tourists who return from areas where certain species are endemic. As travel to endemic regions becomes more common, physicians are increasingly confronted with cases of diseases caused by arthropods. They may be unfamiliar with this parasitic infection; thus, misdiagnosis and inappropriate treatment regimens are not infrequent. Greater awareness about clinical symptoms and relevant exposure histories would improve the expediency and efficacy of treatment for patients with diseases caused by arthropods. Cutaneous myiasis is a worthy differential diagnosis in patients presenting with furunculoid skin lesions after traveling to endemic areas. Treatment consists in the elimination of the larvae in the infected tissue and disinfection of the wound.

**Key words:** arthropods diseases, moth larva Helicoverpa armigera, erucism, clitoris, tungiasis, cutaneous myiasis, intestinal is, delusions in parasitology, larva Cordylobia anthropophaga, Dermatobia hominis, larva Lucilia spp., tourists

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**HEMORRHAGIC FEVER WITH RENAL SYNDROME IN PREGNANT FEMALES IN THE PRIMORSKY KRAI**

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Abstract: Results of the analysis of cases of hemorrhagic fever with renal syndrome (HFRS) in pregnant females recorded in the Primorsky Krai, clinical symptomatology of the disease, pregnancy outcome and neonatal state are presented. In case of mild course of HFRS a favorable outcome of the disease, which had not broken a normal course of pregnancy without consequences for the child was observed. Severe course of HFRS in pregnant females led to premature labors and subsequent death of a premature infant. Serologic examinations indirectly confirmed the absence of transplacental transmission of the virus from the mother.

Key words: hemorrhagic fever with renal syndrome, pregnancy

EB-1302-050

ORGANIZATION OF NON-SPECIFIC PREVENTION OF HFRS IN THE INDIGENOUS TERRITORY IN THE REPUBLIC OF BASHKORTOSTAN

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Abstract: In the regional pathology of the Republic of Bashkortostan hemorrhagic fever with renal syndrome takes the leading place among all feral herd infections. In the paper a complex of measures for non-specific prevention, performed in the territory of the Republic of Bashkortostan is described. Deratization was noted to take the leading place in the complex of the preventive measures.

Key words: hemorrhagic fever with renal syndrome, incidence, deratization

EB-1302-054

A prominent scientist and gifted epidemiologist (to the 110th anniversary of Professor I.I. Elkin)

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Abstract: In the article the life way and the career of an outstanding Russian epidemiologist, talented Organizer of Health care, wellknown public figure, a remarkable pedagogue, honored worker of a science of Uzbek SSR Professor Ivan Ivanovich Elkin has been presented

Key words: I. I. Elkin, epidemiology