COMPUTER INFORMATION SYSTEM "GENOMICS BORNE PATHOGENS TICKS"

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Over the last century changed the overall picture of health, "Chekhov's heroes and Remarque died of tuberculosis, Lenin did not measure the pressure." Against the background of success in the fight against some diseases there are others. Prior to the Far East, the Red Army began to die, mankind was not aware of tick-borne encephalitis, and some infections occur in the XXI century. The first clinical description of encephalitis given in 1935, in 1937 during an expedition to the Far East Lev Alexandrovich Zilber virus has been identified it; exciter. In everyday life we introduce the concept of natural focal infections. The first real success in the fight against a new threat occurs only at the end of the XX century [ak. Vlasov VV, 2015].
Ticks literally crawl across the country. "In the suburbs, until recently, they were not, and last year about 700 people called for help." Also taiga Ixodes persulcatus showed even more dangerous Ixodes pavlovskyi. Also known subtypes of the causative agent of encephalitis (European, Siberian and Far East), discovered two new, more complicated picture.

In addition encephalitis ticks carry a whole bunch of dangerous diseases. This tick-borne Lyme disease (Lyme disease), tick-borne typhus type, hemorrhagic fever and Kemerovo. Diseases caused by Ehrlich, Rickettsia, Anaplasma and Babesia. The problem is that the problems that the "list of infectious agents carried by ticks, is constantly growing, but a set of suitable diagnostics, vaccines and drugs updated much more slowly" [1].

To combat mites you need to destroy all life. " These creatures live everywhere, they found even penguins Antarctic islands. In Siberia, the carriers of heavy (with mortality up to 25% during the outbreaks) disease - encephalitis - traditionally considered Ixodes persulcatus, he's taiga tick. But just in recent years has spread rapidly Ixodes pavlovskyi - the most dangerous vehicle of infection. According to the survey the surrounding area of the Novosibirsk Scientific Center - infection of Ixodes pavlovskyi virus encephalitis, pathogenic to laboratory mice (and humans) is almost three times higher than that collected in the same area Ixodes persulcatus.

These circumstances were the cause of the beginning of work on the development of an interactive information system (IS) «Genomics of tick-borne pathogen», Internet address http://tick1.ict.sbras.ru/. You can use it to replenish, store and process field data for resettlement, migration of ticks and the pathogens they carry. In addition to specifying the modern diagnostics of pathogens based on algorithms of sequencing, it was necessary to further build an interactive map displaying locations of field gathering and information about them, including the publication of research materials. For experts it became necessary to realize the possibility of viewing the number of ticks in the field of observation dates and geographic location of works, view the number of ticks by type and gender and the ability to view the occurrence of infections and genes.

Literature

1. Report on the meeting of the Presidium of the Siberian Branch of the Russian Academy of Sciences, director of the Institute of Chemical Biology and Fundamental Medicine of the SB RAS Academician VV Vlasov et al., Russia, Novosibirsk.-06.03.2015.