EuroSciCon

12th Edition of International Conference on

Infectious Diseases

April 22-23, 2019
Rome, Italy

Sabina Ibrahimova et al., J Infec Dis Treat 2019, Volume 5
DOI: 10.21767/2472-1093-C2-012

Assessment the prevalence of highly pathogenic bunyavirus (Crimean-Congo Hemorrhagic Fever Virus) circulating in Azerbaijan

Sabina Ibrahimova, Roger Hewson, Tahir Valiyev and **Rita Ismayilova**

Republican Anti-Plaque Station, Azerbaijan

Crimean-Congo Hemorrhagic Fever is a tick-borne zoonotic disease caused by single strained RNA virus belonging to the ecological group of arboviruses (the genus *Nairovirus* of the family *Bunyaviridae*) carried by Ixodes ticks. The virus is highly pathogenic in nature, easily transmissible and has a high case fatality rate of 10-40%. Knowledge for the prevalence of Crimean-Congo Hemorrhagic Fever virus (CCHFV), especially its seasonal and ecological changes is fragmentary in Azerbaijan. The urgency of the problem is also related to the sporadic or outbreak character of the epidemic of the CCHF disease in neighboring countries (Iran, Turkey, Georgia), which determines the need to study the epidemiological aspect of the CCHFV in Azerbaijan. The aim of this study was to give a description of the circulation of the CCHFV in Azerbaijan and to identify the possibility of CCHF virus-specific antibodies among patients with unexplained etiology and with the following clinical symptoms: temperature, nausea, headache, myalgia, etc. During the ELISA training carried out by the Public Health of England (PHE) in RAPS, Baku, Azerbaijan in August 2017, the researchers from UK PHE and RAPS screened 400 human serum samples that had been collected previously for testing against *Brucella* spp. antibodies in the frame of the *Brucella* active surveillance program in Azerbaijan in 2016-2017. Collected serum samples were stored at -20°C. The vector-best CCHF IgG ELISA kits were used for testing of samples on a Thermo Scientific Multiskan FC microbiological analyzer. The antibodies against CCHFV were detected in 100 samples (25%) and the interesting fact that 21 out of 100 samples were from the people that have been diagnosed with brucellosis. We recommend testing all samples received in the frame of the *Brucella* active surveillance program using two complementary methods like determination of antibodies against the CCHFV by ELISA and detection of RNA of the CCHFV by PCR. Application of the PCR assay shows no cross reactivity and does not detect other viruses from within the same genus. Usage of the molecular based assays is necessary for the definition of the CCHFV strain circulating in Azerbaijan.

sabinamammed@gmail.com