

O1052 Crimean-Congo haemorrhagic fever morbidity and seroprevalence of anti-CCHF IgG in the Rostov region (South of Russia)

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Background: Rostov region located in the South of Russia below the 50th parallel of northern latitude is endemic for Congo-Crimean hemorrhagic fever (CCHF). 662 cases of CCHF were recorded in it from 2000 to 2018.

Aim of study: to detect the level of seroprevalence in the different endemic for CCHF districts of the Rostov region and compare it with CCHF morbidity.

Materials/methods: 368 blood sera samples of conditionally healthy individuals from 8 Southeastern districts of Rostov region were checked on anti-CCHF-IgG by ELISA.

Retrospective study of CCHF morbidity from 2015 to 2018 in the same districts was implemented.

Results: During 5 last years we have observed the decrease of CCHF morbidity in the Rostov region. 77 CCHF cases were recorded in this area in 2015, 51 - in 2016, 37 in 2017, 24 in 2018. The largest number of cases were registered in 8 southeastern districts, which accounted for more than 70% of CCHF cases. anti-CCHF-IgG were found in individuals from 4 southeastern regions. On average, the proportion of seropositive individuals for CCHF was 1.1%. This indicator ranged from 0% (in Peschanokopsky, Zimovnikovsky, Martynovsky and Tselinsky districts) to 2.3%, 2.2%, 2.1%, 2.1% in Zavetinsky, Salsky, Dubovsky and Remontnensky districts. In the territory of these districts the level of morbidity (2–5 cases of CCHF annually) was more high than in districts with 0% level of seroprevalence (0-2 cases annually). 10 years ago, this level was 0.4%, currently it is 3 times higher (1.1%). In areas with a higher incidence of CCHF, a level of seroprevalence of the population also is higher ($r = 0.7$, $p=0.05$). Increasing the level of seropositive individuals in the region as a whole is inversely related to the incidence rate ($r = -1$, $p=0.00$).

Conclusions: The data obtained allow us to predict a further decrease the incidence of CCHF along with an increase the level of seropositive individuals. Endemic districts of the Rostov region with a low level of seroprevalence of the population and annual registration of cases of CCHF are the areas of greatest risk for CCHF in future.

